

Practice Test
4.OA.A.1 Use the four operations with whole numbers to solve problems.

Name _____

1. For numbers 1a–1c, write an equation or a comparison sentence using the numbers on the tiles.

1a. $\overbrace{4 \ 4 \ 4 \ 4 \ 4 \ 4 \ 4}^{32}$ $\boxed{4}$ $\boxed{3}$ $\boxed{4}$ $\boxed{6}$ $\boxed{8}$ $\boxed{8}$ $\boxed{48}$

$\boxed{4}$ $\boxed{8}$ times as many as $\boxed{4}$ is $\boxed{32}$.

1b. $\overbrace{8 \ 8 \ 8 \ 8 \ 8 \ 8}^{48}$ $\boxed{8}$ $\boxed{6} \times \boxed{8} = \boxed{48}$

$\boxed{9}$ times as many as $\boxed{3}$ is $\boxed{27}$.

1c. $9 \times 3 = 27$

2. For numbers 2a–2b, write an equation or a comparison sentence using the numbers on the tiles.

2a. $\overbrace{9 \ 9 \ 9 \ 9}^{36}$ $\boxed{9}$ $\boxed{3}$ $\boxed{4}$ $\boxed{7}$ $\boxed{9}$ $\boxed{21}$ $\boxed{36}$

$\boxed{9}$ $\boxed{4}$ times as many as $\boxed{9}$ is $\boxed{36}$.

2b. $\overbrace{3 \ 3 \ 3 \ 3 \ 3 \ 3 \ 3}^{21}$ $\boxed{3}$ $\boxed{7} \times \boxed{3} = \boxed{21}$

GO ON

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Practice Test

Name _____

3. At the pet fair, Darlene's dog weighed 5 times as much as Leah's dog. Together, the dogs weighed 84 pounds. How much did each dog weigh? Complete the bar model. Write an equation and solve.

$\overbrace{n \ n \ n \ n \ n}^{84}$ \boxed{n} $\boxed{84}$

$6 \times n = 84$
 $n = 14$
Leah's dog weighed 14 pounds.
Darlene's dog weighed 70 pounds.

4. Heidi's mom made flower arrangements for a party. She made 4 times as many rose arrangements as tulip arrangements. Heidi's mom made a total of 40 arrangements. How many flower arrangements of each type did Heidi's mom make? Complete the bar model. Write an equation and solve.

$\overbrace{n \ n \ n \ n}^{40}$ \boxed{n} $\boxed{40}$

Rose \boxed{n} \boxed{n} \boxed{n} \boxed{n}
Tulip \boxed{n}

$5 \times n = 40$
 $n = 8$
Heidi's mom made 8 tulip arrangements and 32 rose arrangements.

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Practice Test

4.OA.A.2
Use the four operations with whole numbers to solve problems.

Name _____

1. Ursula bought 9 dozen rolls of first-aid tape for the health office. The rolls were divided equally into 4 boxes. How many rolls are in each box?
27 rolls
2. There are 112 seats in the school auditorium. There are 7 seats in each row. There are 70 people seated, filling up full rows of seats. How many rows are empty?
6 rows
3. Last weekend, Mandy collected 4 times as many shells as Cameron. Together, they collected 40 shells. How many shells did Mandy collect? Write an equation and solve.

$$5 \times n = 40$$

$$n = 8$$

$$4 \times 8 = 32$$

Mandy collected **32** shells.

4. The soccer team sells 72 bagels with cream cheese for \$2 each during a bake sale. The coach wants to use the bake sale money to buy socks for the 14 players at \$6 a pair. If the coach spends all of the money on socks, how many extra pairs of socks will he have? Explain how you found your answer.

10 extra pairs; Possible explanation: First, I found the total amount raised selling bagels with cream cheese: $\$2 \times 72 = \144 . Then, I found how many pairs of socks the coach could buy with the money: $\$144 \div \$6 = 24$ pairs. Finally, I subtracted the number of players from the number of pairs of socks: $24 - 14 = 10$.



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5. Chad bought 8 dozen note pads for his office. The note pads were divided equally into 6 boxes. How many note pads are in each box?
16 note pads
6. There are 126 seats in a meeting room. There are 9 seats in each row. There are 90 people seated, filling up full rows of seats. How many rows are empty?
4 rows
7. The number of gray pigeons on a wire is 6 times the number of white pigeons. Choose one expression from each column to create an equation that compares the number of gray pigeons (g) and white pigeons (w).

<input type="radio"/> $g + 6$	<input type="radio"/> $w - 6$
<input type="radio"/> $6g$	<input type="radio"/> $6w$
<input type="radio"/> g	<input type="radio"/> $w + 5$
<input type="radio"/> $g - 6$	<input type="radio"/> w

=

Possible answers: $g = 6w$; $g \div 6 = w$

8. The number of ash trees on a tree farm is 5 times the number of pine trees. Choose one expression from each column to create an equation that compares the number of ash trees (a) and pine trees (p).

<input type="radio"/> $a - 5$	<input type="radio"/> p
<input type="radio"/> $5a$	<input type="radio"/> $5p$
<input type="radio"/> a	<input type="radio"/> $p + 5$
<input type="radio"/> $a + 5$	<input type="radio"/> $p - 5$

=

Possible answers: $a = 5p$; $a \div 5 = p$



Name _____

Practice Test
4.OA.A.3
Use the four operations with whole numbers to solve problems.

1. Rudy will buy 3 ivory silk lilac trees or 2 bur oak trees. He wants to buy the trees that cost less. What trees will he buy? How much will he save? Show your work.

Prices for Trees				
Tree	Regular Price	Price for 3 or more	Tree	Price for 3 or more
Ivory Silk Lilac	\$25	\$22	Hazelnut	\$8
White Pine	\$25	\$37	Red Maple	\$8
Bur Oak	\$35	\$32	Birch	\$8

Rudy will buy 3 ivory silk lilac trees; \$4
 $22 \times 3 = 66$; $35 \times 2 = 70$
 $70 - 66 = 4$
Check students' work.

2. There are 3 new seats in each row in a school auditorium. There are 15 rows in the auditorium. Each new seat costs \$74. What is the cost for the new seats? Explain how you found your answer.

\$3,330; Possible explanation: I multiplied 3 and 15 to get 45 seats. Then I multiplied 45 and 74 using partial products: $(40 \times 70) + (40 \times 4) + (5 \times 70) + (5 \times 4)$ to get $2,800 + 160 + 350 + 20 = 3,330$.

3. Nolan divides his 88 toy cars into boxes. Each box holds 9 cars. How many boxes does Nolan need to store all of his cars?

_____ boxes

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4. Kris and Julio played a card game. Together, they scored 36 points in one game. Kris scored 2 times as many points as Julio. How many points did Kris and Julio each score? Write an equation and solve. Explain your work.

Possible explanation: Julio scored n points, and Kris scored $2 \times n$ points. Together they scored $3 \times n$ points, so I wrote the equation $3 \times n = 36$. I solved to find $n = 12$ points and $2 \times n = 24$ points. Julio scored 12 points, and Kris scored 24 points.

5. A kennel is moving 160 dogs to a new facility. Each dog has its own crate. The facility manager rents 17 trucks. Each truck holds 9 dogs in their crates.

Part A

Write a division problem that can be used to find the number of trucks needed to carry the dogs in their crates. Then solve.

$160 \div 9 = 17 \text{ r } 7$

Part B

What does the remainder mean in the context of the problem?

A remainder of 7 means that 7 dogs and their crates do not fit in the 17 trucks.

Part C

How can you use your answer to determine if the facility manager rented enough trucks? Explain.

Having a remainder lets me know that not all of the dogs and their crates will fit in the 17 trucks. The facility manager did not rent enough trucks.

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Practice Test

4.OA.B.4
Gain familiarity with factors and multiples.

Name _____

1. List all the factor pairs in the table.

Factors of 48	
1 × 48 = 48	1 48
2 × 24 = 48	2 24
3 × 16 = 48	3 16
4 × 12 = 48	4 12
6 × 8 = 48	6 8

2. Brady has a card collection with 64 basketball cards, 32 football cards, and 24 baseball cards. He wants to arrange the cards in equal piles, with only one type of card in each pile. How many cards can he put in each pile? Mark all that apply.
- 1
 2
 3
 4
 8
 32
3. Manny makes dinner using 1 box of pasta and 1 jar of sauce. If pasta is sold in packages of 6 boxes and sauce is sold in packages of 3 jars, what is the least number of dinners that Manny can make without any supplies left over?
- 6 dinners
4. Marissa was decorating her room. She arranged 63 same-size picture tiles on a wall in the shape of a rectangle. Which are possible arrangements of the picture tiles? Mark all that apply.

- 7 rows of 9 tiles
 22 rows of 6 tiles
 21 rows of 3 tiles
 63 rows of 1 tile
 32 rows of 2 tiles



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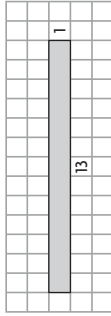
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Name _____

5. Eric had 13 tiles to arrange in a rectangular design. He drew a model of the rectangles he could make with the 13 tiles.



Part A

How does Eric's drawing show that 13 is a prime number?

Possible explanation: Since there is only one possible rectangle that can be drawn with 13 tiles, the only factors of 13 are 1 and itself. This makes 13 a prime number.

Part B

Suppose Eric used 12 tiles to make the rectangular design. How many different rectangles could he make with the 12 tiles? Write a list or draw a picture to show the number and dimensions of the rectangles he could make.

3; 1 tile by 12 tiles, 2 tiles by 6 tiles, and 3 tiles by 4 tiles

Part C

Eric's friend Dawn said that she could make a larger number of different designs with 15 tiles than with Eric's 13 tiles. Do you agree with Dawn? Explain.

Yes; Possible explanation: The number 15 is composite, so there is more than one factor pair. This means that more rectangles can be made.



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Practice Test
4.OA.C.5
generate and analyze patterns.

1. Jill wrote the number 40. If her rule is *add 7*, what is the fourth number in Jill's pattern? How can you check your answer?

61; Possible answer: Start with 61 and subtract 7 three times to get 40. 61, 54, 47, 40.
2. Erica knits 18 squares on Monday. She knits 7 more squares each day from Tuesday through Friday. How many squares does Erica have in all by the end of the day on Friday?

46 squares
3. Use the rule to write the first five terms of the pattern.

Rule: Add 10, subtract 5 First term: 11

11, 21, 16, 26, 21
4. Jose wrote the number 36. If his rule is *add 6*, what is the fourth number in Jose's pattern? How can you check your answer?

54; Possible answer: Start with 54 and subtract 6 three times to get 36. 54, 48, 42, 36.
5. Aidan makes 12 bracelets on Monday. He makes 8 more bracelets each day from Tuesday through Friday. How many bracelets does Aidan have in all by the end of the day on Friday?

44 bracelets

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Name _____

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6. Use the rule to write the first five terms of the pattern.

Rule: Add 8, subtract 4 First term: 13

13, 21, 17, 25, 21
7. Use the rule to find the next 3 terms in the pattern.

Rule: multiply by 2

4

8

16

32

64

128

256
8. Draw the next term of the pattern.
9. Use the rule to find the next 3 terms in the pattern.

Rule: multiply by 3

3

9

27

81

243

729

2,187

...
10. Draw the next term of the pattern.

STOP

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Practice Test

Name _____

4. Leslie wrote the greatest number that can be made using each of these digits exactly once.

6
2
4
7
9
1

Part A

What was Leslie's number? How do you know this is the greatest possible number for these digits?

976,421; Possible answer: I used place value. I took the highest number and placed it in the spot furthest to the left, the hundred thousands column. I placed the next highest number in the ten thousands column and so on. I know that each place value is tens times as much as the place value to its right.

Part B

What is the least number that can be made using each digit exactly once? Explain why the value of the 4 is greater than the value of the 6.

124,679; Possible explanation: The 4 represents 4,000, and the 6 represents 600.

5. Which statements are true? Mark all that apply.

A The value of 2 in 724,638 is 20,000.


B The value of 8 in 380,194 is 800,000.

C The value of 7 in 671,235 is 70,000.

D The value of 9 in 874,092 is 900.

6. Carson made a four-digit number with a 4 in the thousands place, a 4 in the ones place, a 5 in the tens place, and a 6 in the hundreds place. What was the number?

4,654



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Practice Test

4.NBT.A.1
Generalize place value understanding for multi-digit whole numbers.

Name _____

1. Nancy wrote the greatest number that can be made using each of these digits exactly once.

5
3
4
9
8
1

Part A

What was Nancy's number? How do you know this is the greatest possible number for these digits?

985,431; Possible answer: I used place value. I took the greatest digit and placed it in the spot furthest to the left, the hundred thousands column. I placed the next greatest digit in the ten thousands column and so on. I know that the place value of each digit to the left is ten times the place value of the digit to its right.

Part B

What is the least number that can be made using each digit exactly once? Explain why the value of the 4 is greater than the value of the 5.

134,589; Possible explanation: The 4 represents 4,000, and the 5 represents 500.

2. Circle the choice that completes the statement.


10,000 less than 24,576 is greater than 1,000 less than 14,576.

equal to

less than

3. Caden made a four-digit number with a 5 in the thousands place, a 5 in the ones place, a 6 in the tens place, and a 4 in the hundreds place. What was the number?

5,465



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Practice Test

Practice Test
4.NBT.A.2
Generate place value understanding for multi-digit whole numbers.

Name _____

1. Write the name of each mountain peak in the box that describes its height, in feet.

U.S. Mountain Peaks				
Name	State	Height (ft)	Name	State
Blanca Peak	CO	14,345	Mount Whitney	CA
Crestone Peak	CO	14,294	University Peak	AK
Humboldt Peak	CO	14,064	White Mountain	CA

Between 14,000 feet and 14,300 feet

Crestone Peak, Humboldt Peak, White Mountain

Between 14,301 feet and 14,500 feet

Blanca Peak, University Peak, Mount Whitney

GO ON

Practice Test

2. Select another way to show 403,871. Mark all that apply.

(A) four hundred three thousand, eight hundred one

(B) four hundred three thousand, seventy-one

(C) four hundred three thousand, eight hundred seventy-one

(D) $400,000 + 38,000 + 800 + 70 + 1$

(E) $400,000 + 3,000 + 800 + 70 + 1$

(F) $4 \text{ hundred thousands} + 3 \text{ thousands} + 8 \text{ hundreds} + 7 \text{ tens} + 1 \text{ one}$

3. A college baseball team had 3 games in April. Game one had an attendance of 14,753 people. Game two had an attendance of 20,320 people. Game three had an attendance of 14,505 people. Write the games in order from the least attendance to the greatest attendance. Use pictures, words, or numbers to show how you know.

Game three, Game one, Game two; Possible answer: $14,505 < 14,753 < 20,320$

Practice Test

Name _____

4. Select a number for that will make a true comparison. Mark all that apply.

$807,058 > \square$

(A) 870,508 (C) 807,508 (E) 805,058

(B) 870,058 (D) 807,085 (F) 800,758

STOP

Practice Test

5. Select another way to show 106,423. Mark all that apply.

(A) $100,000 + 6,000 + 400 + 20 + 3$

(B) 1 hundred thousand + 6 thousands + 4 hundreds + 2 tens + 3 ones

(C) one hundred six thousand, twenty-three

(D) $100,000 + 16,000 + 400 + 20 + 3$

(E) one hundred six thousand, four hundred three

(F) one hundred six thousand, four hundred twenty-three

6. Match the number to the value of its 5.

36,458	375,123	18,005	52,789	5
●	●	●	●	●

(Note: Lines connect 36,458 to 5, 375,123 to 50,000, 18,005 to 5,000, and 52,789 to 50,000.)

7. An ice-skating competition lasted three days. Day one had an attendance of 16,390 people. Day two had an attendance of 16,550 people. Day three had an attendance of 16,237 people. Write the days in order from least attendance to greatest attendance. Use pictures, words, or numbers to show how you know.

Day three, day one, day two; Possible answer: $16,237 < 16,390 < 16,550$

Practice Test

4.NBT.A.3
Generalize place value understanding
for multi-digit whole numbers.

Name _____

1. Bobby and Cheryl each rounded 745,829 to the nearest ten thousand. Bobby wrote 750,000, and Cheryl wrote 740,000. Who is correct? Explain the error that was made.

Bobby is correct. Possible explanation: Cheryl left the ten thousands digit the same instead of increasing it by 1. The digit in the thousands place is 5, so to round to the nearest ten thousand, Cheryl should have increased the ten thousands digit, 4, by 1.

2. The total season attendance for a college team's home games, rounded to the nearest ten thousand, was 270,000. Which number could be the exact attendance?

- A 265,888
 B 260,987
 C 276,499
 D 206,636

3. There were 13,501 visitors to a museum in June. What is this number rounded to the nearest ten thousand? Explain how you rounded.

10,000; Possible explanation: There is a 1 in the ten thousands place. The digit to its right is 3, so the 1 stays the same.

4. The total season attendance for a professional football team's home games, rounded to the nearest ten thousand, was 710,000. Could 701,752 be the exact attendance for the season? Explain your answer.

No; Possible explanation: 701,752 rounded to the nearest ten thousand is 700,000, not 710,000.

GO ON 

Practice Test

Name _____

5. Luis and Liz each rounded 635,974 to the nearest ten thousand. Luis wrote 630,000, and Liz wrote 640,000. Who is correct? Explain the error that was made.

Liz is correct. Possible explanation: Luis left the ten thousands digit the same instead of increasing it by 1. The digit in the thousands place is 5, so to round to the nearest ten thousand, Luis should have increased the ten thousands digit, 3, by 1.

6. There were 12,351 visitors to a history center last year. What is this number rounded to the nearest hundred? Explain how you rounded.

12,400; Possible explanation: There is a 3 in the hundreds place. The digit to its right is 5, so 12,351 is closer to 12,400 than to 12,300.

7. The number of people who attended a festival, rounded to the nearest hundred thousand, was 300,000. Which could be the exact number of people who attended the festival?

- A 351,213
 B 249,899
 C 252,348
 D 389,001



Practice Test
4.NBT.B.4
Use place value understanding and properties of operations to perform multi-digit arithmetic.

Name _____

For numbers 1–2, use the table.

Population of Sacramento, CA		
Age in years	Population	Age in years
Under 5	35,010	20 to 34
5 to 9	31,406	35 to 49
10 to 14	30,253	50 to 64
15 to 19	34,219	65 and over

1. How many children are under 10 years old? Show your work.

66,416 children; $35,010 + 31,406 = 66,416$
Check students' work.

2. How many people are between the ages of 20 and 49? Show your work.

207,909 people; $115,279 + 92,630 = 207,909$
Check students' work.

3. New Mexico has an area of 121,298 square miles. California has an area of 155,779 square miles. How much greater is the area, in square miles, of California than the area of New Mexico? Show your work and explain how you know the answer is reasonable.

34,481 square miles; $155,779 - 121,298 = 34,481$;
I estimated the difference as 160,000 – 120,000, or 40,000. The answer is close to the estimate of 40,000, so it is reasonable. Check students' work.

GO ON

Practice Test

Practice Test

Name _____

For numbers 4–5, use the table.

Population of Fresno, CA		
Age in years	Population	Age in years
Under 5	43,911	20 to 34
5 to 9	40,087	35 to 49
10 to 14	39,634	50 to 64
15 to 19	43,867	65 and over

4. How many people are between the ages of 35 and 64? Show your work.

161,677 people; $89,416 + 72,261 = 161,677$;
Check students' work.

5. How many more children are under the age of 5 than between the ages of 10 and 14? Show your work.

4,277 children; $43,911 - 39,634 = 4,277$;
Check students' work.

6. Arizona has a land area of 113,998 square miles. Wyoming has a land area of 97,813 square miles. How much greater is the area, in square miles, of Arizona than the area of Wyoming? Show your work and explain how you know the answer is reasonable.

16,185 square miles; $113,998 - 97,813 = 16,185$;
I estimated the difference as 110,000 – 98,000, or 12,000. The answer is close to the estimate of 12,000, so it is reasonable. Check students' work.

STOP

Practice Test

Practice Test
4.NBT.B.5
Use place value understanding and properties of operations to perform multi-digit arithmetic.

Name _____

1. Part A
Draw a line to match each section in the model to the partial product it represents.

Part B
Then find 3×146 . Show your work and explain.

$$\begin{array}{r} 146 \\ \times 3 \\ \hline 300 \\ 120 \\ + 18 \\ \hline 438 \end{array}$$

Check students' work.

Possible explanation: The model shows that I can write 146 as $100 + 40 + 6$. Then I multiply each number by 3 to get the partial products 300, 120, and 18. The sum of the partial products, 438, is the answer.

2. It costs 9,328 points to build each apartment building in the computer game Big City Building. What is the cost to build 5 apartment buildings? Show your work.

$$\begin{array}{r} 9,328 \\ \times 5 \\ \hline 46,640 \end{array}$$

46,640 points; 9,328 Check students' work.

Practice Test

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Practice Test

Name _____

3. Write the unknown digits. Use each digit exactly once.

$$\begin{array}{r} 51 \\ \times 28 \\ \hline 1,000 \\ 400 \\ 20 \\ + \quad 8 \\ \hline 1,428 \end{array}$$

4. Write the unknown digits. Use each digit exactly once.

$$\begin{array}{r} 46 \\ \times 93 \\ \hline 3,600 \\ 540 \\ 120 \\ + 18 \\ \hline 4,278 \end{array}$$

Practice Test

Julius

$$\begin{array}{r} 25 \\ \times 16 \\ \hline 250 \\ + 150 \\ \hline 500 \end{array}$$

Wait

$$\begin{array}{r} 25 \\ \times 16 \\ \hline 200 \\ 120 \\ 300 \\ + 50 \\ \hline 670 \end{array}$$

5. Julius and Wait are finding the product of 25 and 16.

Part A
Both answers are incorrect. What did Julius do wrong? What did Wait do wrong?

Julius multiplied 25 by 10 and then multiplied 25 by 6 correctly. He added the two partial products incorrectly. Wait multiplied 6 by 5 and got 300 instead of 30.

Part B
What is the correct product?

400



Name _____

1. Which quotients are equal to 300? Mark all that apply.

1,200 ÷ 4 2,400 ÷ 8 9,000 ÷ 3

180 ÷ 9 2,100 ÷ 7 3,000 ÷ 3

2. A traveling circus brings along everything it needs for its shows in big trucks.

Part A

The circus sets up chairs in rows with 9 seats in each row. How many rows will need to be set up if 513 people are expected to attend the show?

57 _____ rows

Part B

Can the rows be divided into a number of equal sections? Explain how you found your answer.

Yes; Possible explanation: I divided 513 by 9 to find that there will need to be 57 rows. Since 57 can be divided by 3 with no remainder, the rows can be arranged into 3 equal sections.

Part C

Circus horses eat about 250 pounds of horse food per week. About how many pounds of food does a circus horse eat each day? Explain.

Possible answer: about 40 pounds; I multiplied 7 by multiples of 10. $10 \times 7 = 70$, $20 \times 7 = 140$, $30 \times 7 = 210$, $40 \times 7 = 280$. 250 is closest to 280, so the best estimate is about 40 pounds of food.

Practice Test

4.NBT.B.6
Use place value understanding and properties of operations to perform multi-digit arithmetic.

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Practice Test

Name _____

3. Which division sentence has a quotient with a remainder?

A 320 ÷ 4 B 420 ÷ 3 C 650 ÷ 4 D 360 ÷ 9

4. Which quotients are equal to 20? Mark all that apply.

A 120 ÷ 4 B 180 ÷ 9 C 120 ÷ 6 D 180 ÷ 6

5. Use partial quotients. Fill in the blanks.

$$\begin{array}{r} 7 \overline{)749} \\ \underline{-700} \\ 49 \\ \underline{-49} \\ 0 \end{array}$$

$$\begin{array}{r} 100 \times 7 \\ \underline{} \\ 7 \times 7 \end{array}$$

$$\begin{array}{r} 100 \\ + \\ \hline 107 \end{array}$$

Practice Test

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Practice Test

4.NF.A.1
Extend understanding of fraction equivalence and ordering.

Name _____

1. For numbers 1a–1d, tell whether the fractions are equivalent by selecting the correct symbol.

1a. $\frac{3}{12}$ \neq $\frac{1}{4}$

1c. $\frac{5}{6}$ \neq $\frac{10}{12}$

1b. $\frac{3}{5}$ \neq $\frac{9}{10}$

1d. $\frac{6}{10}$ \neq $\frac{5}{8}$

2. In the school chorus, $\frac{2}{12}$ of the students are fourth graders. In simplest form, what fraction of the students in the school chorus are fourth graders?

$\frac{1}{6}$ of the students

3. Frank has two same-size rectangles divided into the same number of equal parts. One rectangle has $\frac{3}{4}$ of the parts shaded, and the other has $\frac{1}{3}$ of the parts shaded.

Into how many parts could each rectangle be divided? Show your work by drawing the parts of each rectangle and shading the correct amounts.

Possible answer: 12 parts; sample sketch provided.



4. Fill in the missing numerators to make chains of equivalent fractions.

$\frac{1}{2} = \frac{50}{100}$

$\frac{2}{3} = \frac{6}{9} = \frac{8}{12}$

$\frac{3}{4} = \frac{6}{8} = \frac{75}{100}$

GO ON

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Name _____

5. Morita works in a florist shop and makes flower arrangements in vases. She puts 10 flowers in each vase, and $\frac{2}{10}$ of the flowers are daisies.

Part A

If Morita makes 10 arrangements, how many daisies does she need? Show how you can check your answer.

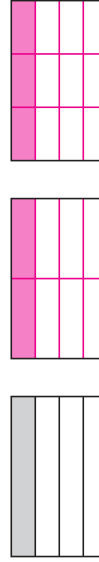
20 daisies

Possible answer: There are 10 flowers in each arrangement, so there are 100 flowers in 10 arrangements. Since $\frac{2}{10}$ and $\frac{20}{100}$ are equivalent fractions, the answer checks.

6. Geoff is making gift bags for his friends. There are stickers in $\frac{1}{4}$ of the gift bags. If Geoff makes 12 gift bags, how many will contain stickers?

3 gift bags

7. Craig is tiling the floor of his bathroom. He wants $\frac{1}{4}$ of the tiles to be brown. What other fractions can represent the part of the tiles that will be brown? Shade the models to show your work.



$\frac{1}{4}$

$\frac{2}{8}$

Possible answer: $\frac{3}{12}$



Name _____

Practice Test
4.NF.A.2
Extend understanding of fraction equivalence and ordering.

1. Juan's mother gave him a recipe for trail mix.

$\frac{3}{4}$ cup cereal
 $\frac{2}{3}$ cup almonds

$\frac{1}{4}$ cup peanuts
 $\frac{1}{2}$ cup raisins

Order the ingredients used in the recipe from least to greatest.

peanuts

raisins

almonds

cereal

2. Darcy bought $\frac{1}{2}$ pound of cheese and $\frac{3}{4}$ pound of hamburger for a barbecue. Use the numbers to compare the amounts of cheese and hamburger Darcy bought.

1

<

2

3

>

4

3. Suki rode her bike $\frac{4}{5}$ mile. Claire rode her bike $\frac{1}{3}$ mile. They want to compare how far they each rode their bikes.

a longer distance than
the same distance as
a shorter distance than

Suki rode her bike _____ Claire.

4. Theo has $\frac{2}{3}$ yard of blue fabric and $\frac{3}{4}$ yard of red fabric. He wants to compare the amounts of blue and red fabric he has.

$\frac{2}{3}$ < $\frac{3}{4}$

$\frac{2}{3}$ > $\frac{3}{4}$

$\frac{2}{3}$ = $\frac{3}{4}$

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Practice Test

Name _____

Practice Test

5. Regina, Courtney, and Ellen hiked around Bear Pond. Regina hiked $\frac{7}{10}$ of the distance in an hour. Courtney hiked $\frac{3}{6}$ of the distance in an hour. Ellen hiked $\frac{3}{8}$ of the distance in an hour. Compare the distances hiked by each person by matching the statements to the correct symbol. Each symbol may be used more than once or not at all.

$\frac{7}{10}$ < $\frac{3}{6}$

$\frac{3}{6}$ > $\frac{3}{8}$

$\frac{3}{8}$ = $\frac{7}{10}$

6. Ramon is having some friends over after a baseball game. Ramon's job is to make a vegetable dip. The ingredients for the recipe are given.

Ingredients in Vegetable Dip

$\frac{3}{4}$ cup parsley	$\frac{5}{8}$ cup buttermilk
$\frac{1}{3}$ cup dill	$\frac{1}{2}$ cup cream cheese
$\frac{6}{8}$ cup scallions	$\frac{1}{12}$ cup lemon juice

Part A

Which ingredient does Ramon use the greater amount of, buttermilk or cream cheese? Explain how you found your answer.

Buttermilk; Possible answer: I can find equivalent fractions with the same denominator and compare the numerators: $\frac{1}{2} = \frac{4}{8}$. Since $5 > 4$, $\frac{5}{8} > \frac{4}{8}$.

Part B

Ramon says that he needs the same amount of two different ingredients. Is he correct? Support your answer with information from the problem.

Yes; Possible answer: $\frac{3}{4}$ and $\frac{6}{8}$ are equivalent fractions because the simplest form of the fraction $\frac{6}{8}$ is $\frac{3}{4}$. So, Ramon needs the same amount of parsley and scallions.

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Practice Test

Practice Test
4.NF.B.3a
Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.

Name _____

1. Cindy has two jars of paint. One jar is $\frac{3}{8}$ full. The other jar is $\frac{2}{8}$ full.
Use the fractions to write an equation that shows the amount of paint Cindy has.

1

2

3

5

7

$\frac{3}{8}$

+

$\frac{2}{8}$

=

$\frac{5}{8}$

2. On Monday, Erin measures $\frac{3}{4}$ inch of snowfall. It shows some more at the end of the day. Now there are $3\frac{1}{4}$ inches of snow. How many more inches of snow fell?

Part A
Draw a model for the problem. Then solve. Explain how your model helps you solve the problem. **Models will vary.**

Possible model is shown.

2 3/4 inches; Possible explanation: The model represents 4 inches divided into fourths. The shaded parts represent the total snow that falls. The first three shaded parts represent the snow that Erin measures. The ten remaining shaded parts represent the additional snow that falls. $\frac{10}{4} = 2\frac{2}{4}$

Part B
On Tuesday, it snowed an additional $2\frac{2}{4}$ inches. How many total inches of snow fell on Monday and Tuesday? Show your work.

5 3/4 inches; $3\frac{1}{4} + 2\frac{2}{4} = (3 + 2) + (\frac{1}{4} + \frac{2}{4}) = 5 + \frac{3}{4} = 5\frac{3}{4}$

Practice Test

GO ON

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Name _____

Practice Test

3. On Saturday, Jesse plays basketball for $\frac{2}{3}$ hour. Then he plays some more. He plays $2\frac{1}{3}$ hours in all. How much longer did Jesse play basketball?

Part A
Draw a model to represent the problem. Then solve. Explain how your model helps you solve the problem. **Models will vary.**

1 2/3 hours; Possible explanation: The model represents 3 hours divided into thirds. The shaded parts represent the total time Jesse plays. The first two shaded parts represent the time he played at first. The five remaining shaded parts represent the additional time he played. $\frac{5}{3} = 1\frac{2}{3}$

Part B
On Sunday, Jesse played basketball for $1\frac{2}{3}$ hours. How many total hours did he play basketball on Saturday and Sunday? Show your work.

4 hours; $2\frac{1}{3} + 1\frac{2}{3} = (2 + 1) + (\frac{1}{3} + \frac{2}{3}) = 3 + \frac{3}{3} = 3 + 1 = 4$

4. Betsy brought $\frac{6}{12}$ pound of trail mix on a camping trip. She ate $\frac{4}{12}$ pound of the trail mix. How much trail mix is left?

$\frac{2}{12}$ or $\frac{1}{6}$ pound

5. Mindi planted beans in $\frac{4}{10}$ of her garden and peas in $\frac{5}{10}$ of her garden. What fraction of the garden is filled with beans or peas?

Mindi's garden is $\frac{9}{10}$ filled with beans or peas.

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Practice Test

Name _____

Practice Test

4.NF.B.3b
Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.

GO ON

1. Rita is making chili. The recipe calls for $2\frac{3}{4}$ cups of tomatoes. How many cups of tomatoes, written as a fraction greater than 1, are used in the recipe?

$\frac{11}{4}$

cups

2. Lamar's mom sells sports equipment online. She sold $\frac{9}{10}$ of the sports equipment she had in stock. Select a way $\frac{9}{10}$ can be written as a sum of fractions. Mark all that apply.

(A) $\frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{2}{10}$ $\frac{4}{10} + \frac{1}{10} + \frac{1}{10} + \frac{3}{10}$

(B) $\frac{3}{10} + \frac{2}{10} + \frac{3}{10} + \frac{1}{10}$ (E) $\frac{4}{10} + \frac{3}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10}$

(C) $\frac{2}{10} + \frac{2}{10} + \frac{2}{10} + \frac{2}{10}$ (F) $\frac{2}{10} + \frac{2}{10} + \frac{2}{10} + \frac{3}{10}$

3. Dillon's dad sells golf balls online. He sells $\frac{4}{5}$ of the golf balls he has in his attic. Select a way $\frac{4}{5}$ can be written as a sum of fractions. Mark all that apply.

$\frac{1}{5} + \frac{1}{5} + \frac{2}{5}$ $\frac{2}{5} + \frac{2}{5}$

(B) $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5}$ $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5}$

(C) $\frac{2}{5} + \frac{2}{5} + \frac{1}{5}$ (F) $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5}$

4. Draw a line to show the mixed number and fraction that have the same value.

$1\frac{3}{4}$	$5\frac{1}{6}$	$3\frac{2}{5}$	$3\frac{1}{4}$
•	•	•	•
•	•	•	•
$\frac{13}{4}$	$\frac{16}{5}$	$\frac{31}{4}$	$\frac{17}{6}$

Name _____

Practice Test

5. Draw a line to show the mixed number and fraction that have the same value.

$3\frac{2}{6}$	$4\frac{5}{8}$	$2\frac{3}{5}$	$2\frac{3}{8}$
•	•	•	•
•	•	•	•
$\frac{21}{8}$	$\frac{37}{3}$	$\frac{21}{4}$	$\frac{37}{8}$

6. Justin lives $4\frac{3}{5}$ miles from his grandfather's house. Write the mixed number as a fraction greater than 1.

$4\frac{3}{5}$

=

$\frac{23}{5}$

7. Ilene is making smoothies. The recipe calls for $1\frac{1}{4}$ cups of strawberries. How many cups of strawberries, written as a fraction greater than 1, are used in the recipe?

$\frac{5}{4}$

cups

8. Jane is leaving for vacation in $3\frac{4}{6}$ hours. Write the mixed number as a fraction greater than 1.

$3\frac{4}{6}$

=

$\frac{22}{6}$

9. Mrs. Philbert is raising money for charity. She raises $\frac{7}{8}$ of the money she hoped to raise by asking her friends for donations. Select a way $\frac{7}{8}$ can be written as a sum of fractions. Mark all that apply.

(A) $\frac{1}{8} + \frac{2}{8} + \frac{1}{8} + \frac{5}{8}$ (D) $\frac{1}{8} + \frac{4}{8} + \frac{1}{8}$

(B) $\frac{3}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$ (E) $\frac{2}{8} + \frac{1}{8} + \frac{1}{8} + \frac{3}{8}$

(C) $\frac{2}{8} + \frac{2}{8} + \frac{2}{8} + \frac{1}{8}$ (F) $\frac{5}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$



Name _____

5. Jill is making a long cape. She needs $4\frac{1}{3}$ yards of blue fabric for the outside of the cape. She needs $3\frac{2}{3}$ yards of purple fabric for the lining of the cape.

Part A

Jill incorrectly subtracted the two mixed numbers to find how much more blue fabric than purple fabric she should buy. Her work is shown below.

$$4\frac{1}{3} - 3\frac{2}{3} = \frac{12}{3} - \frac{9}{3} = \frac{3}{3}$$

Why is Jill's work incorrect?

Possible explanation: Jill changed only the whole number parts of the mixed number to thirds. She forgot to add the fraction part of the mixed number.

Part B

How much more blue fabric than purple fabric should Jill buy? Show your work.

$$4\frac{1}{3} - 3\frac{2}{3} = \frac{13}{3} - \frac{11}{3} = \frac{2}{3}$$

Jill should buy $\frac{2}{3}$ yard more blue fabric than purple fabric.

6. Which statements are true? Mark all that apply.

- (A) $6\frac{1}{3} + 2\frac{2}{3}$ is equal to 10.
 (B) $1\frac{2}{8} + 3\frac{7}{8}$ is equal to $4\frac{1}{8}$.
 $1\frac{3}{4} + 2\frac{2}{4}$ is equal to $4\frac{1}{4}$.
 $9\frac{5}{6} - 3\frac{2}{6}$ is equal to $6\frac{3}{6}$.



4.NF.B.3c

Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.

Name _____

1. Ivan biked $1\frac{2}{3}$ hours on Monday, $2\frac{1}{3}$ hours on Tuesday, and $2\frac{2}{3}$ hours on Wednesday. What is the total number of hours Ivan spent biking?

Ivan spent $6\frac{2}{3}$ hours biking.

2. Tricia had $4\frac{1}{8}$ yards of fabric to make curtains. When she finished she had $2\frac{3}{8}$ yards of fabric left. She said she used $2\frac{2}{8}$ yards of fabric for the curtains. Do you agree? Explain.

No; Possible explanation: When I subtract $2\frac{3}{8}$ from $4\frac{1}{8}$, the answer is not $2\frac{2}{8}$. The mixed number $4\frac{1}{8}$ needs to be regrouped as a mixed number with a fraction greater than 1. $4\frac{1}{8} = 3\frac{9}{8}$, so $3\frac{9}{8} - 2\frac{3}{8} = 1\frac{6}{8}$ or $1\frac{3}{4}$.

3. Gina has $5\frac{2}{6}$ feet of silver ribbon and $2\frac{4}{6}$ of gold ribbon. How much more silver ribbon does Gina have than gold ribbon?

$2\frac{4}{6}$ or $2\frac{2}{3}$ feet more silver ribbon

4. Match the equation with the property used.

$$\frac{3}{4} + (\frac{2}{4} + \frac{1}{4}) = (\frac{3}{4} + \frac{2}{4}) + \frac{1}{4}$$

Commutative Property

$$(\frac{4}{8} + \frac{1}{8}) + 2\frac{7}{8} = 4\frac{1}{8} + (\frac{1}{8} + 2\frac{7}{8})$$

Associative Property

$$3\frac{1}{6} + 6 + 1\frac{3}{6} = 3\frac{1}{6} + 1\frac{3}{6} + 6$$

$$1\frac{4}{8} + 1\frac{1}{8} + 3\frac{6}{8} = 1\frac{1}{8} + 1\frac{4}{8} + 3\frac{6}{8}$$



Name _____

Practice Test

4.NF.B.3d
Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.

1. A painter mixed $\frac{1}{4}$ quart of red paint with $\frac{3}{4}$ quart of blue paint to make purple paint.
How much purple paint did the painter make?
 $\frac{4}{4}$ or 1 quart of purple paint

2. Julia had $\frac{7}{10}$ gallon of lemonade. She gave some of the lemonade to her little sister. Now Julia has $\frac{3}{10}$ gallon of lemonade. How much lemonade did Julia give to her sister?

(A) $\frac{10}{10}$ gallon

(B) $\frac{5}{10}$ gallon

(C) $\frac{4}{10}$ gallon

(D) $\frac{3}{10}$ gallon

(E) $\frac{7}{10}$ gallon

3. Each day, Tally's baby sister eats $\frac{1}{4}$ cup of rice cereal in the morning and $\frac{1}{4}$ cup of rice cereal in the afternoon.
It will take Tally's sister $\frac{2}{3}$ days to eat 2 cups of rice cereal.

4. Henry ate $\frac{3}{8}$ of a sandwich. Keith ate $\frac{4}{8}$ of the same sandwich. How much more of the sandwich did Keith eat than Henry?
 $\frac{1}{8}$ of the sandwich

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Name _____

Practice Test

5. The school carnival is divided into sections. The dunk tanks are in $\frac{1}{10}$ of the carnival. Games are in $\frac{4}{10}$ of the carnival. Student exhibits are in $\frac{5}{10}$ of the carnival.
Part A
What fraction of the carnival is dunk tanks and games?
The fraction of the carnival with dunk tanks and games is $\frac{5}{10}$ or $\frac{1}{2}$.

- Part B**
How much greater is the part of the carnival with student exhibits than the one with games? Explain how you could use a model to find the answer.

$\frac{1}{10}$ greater; Possible explanation: I could draw a model with 10 sections. I could shade 5 sections to represent the section with the student exhibits. Then I could cross out 4 sections to represent the games. This leaves 1 section, so the fraction of the carnival with student exhibits is $\frac{1}{10}$ greater than the games.

6. Jack has a jar of wax that is $\frac{1}{6}$ full. His dad gives him a second jar of wax that is $\frac{2}{6}$ full.
Use the fractions to write an equation to find the amount of wax Jack has.

$\frac{1}{6}$

$+$

$\frac{2}{6}$

$=$

$\frac{3}{6}$

$+$

$\frac{4}{6}$

$=$

$\frac{5}{6}$

$+$

$\frac{5}{6}$

$=$

$\frac{6}{6}$

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Practice Test

4.NF.B.4a

Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.

Name _____

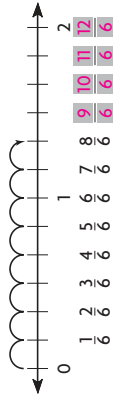
1. After $\frac{1}{8}$, what are the next four multiples of $\frac{1}{8}$?

$\frac{2}{8}, \frac{3}{8}, \frac{4}{8}, \frac{5}{8}$

2. Which fraction is a multiple of $\frac{1}{10}$? Mark all that apply.

- $\frac{3}{10}$ $\frac{2}{10}$ $\frac{9}{12}$
 $\frac{4}{10}$ $\frac{9}{10}$ $\frac{9}{10}$

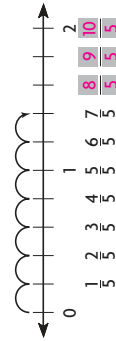
3. Look at the number line. Write the missing fractions.



4. Which fraction is a multiple of $\frac{1}{8}$? Mark all that apply.

- $\frac{3}{8}$ $\frac{4}{8}$ $\frac{8}{8}$
 $\frac{8}{12}$ $\frac{8}{10}$ $\frac{8}{8}$

5. Look at the number line. Write the missing fractions.



GO ON

Practice Test

Name _____

6. After $\frac{1}{12}$, what are the next four multiples of $\frac{1}{12}$?

$\frac{2}{12}, \frac{3}{12}, \frac{4}{12}, \frac{5}{12}$

7. Which fraction is a multiple of $\frac{1}{5}$? Mark all that apply.

- $\frac{4}{5}$ $\frac{5}{10}$ $\frac{3}{5}$
 $\frac{5}{6}$ $\frac{3}{5}$

8. Represent the shaded part of the fraction bar as the product of a whole number and a unit fraction.



$\frac{6}{8} = 6 \times \frac{1}{8}$

9. Complete the table to show the fraction as a product of a whole number and a unit fraction.

Fraction	Product
$\frac{5}{12}$	$5 \times \frac{1}{12}$
$\frac{2}{3}$	$2 \times \frac{1}{3}$
$\frac{4}{4}$	$4 \times \frac{1}{4}$



Name _____

Practice Test

4.NF.B.4b
Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.

1. What fraction shows the product of $2 \times \frac{3}{5}$?

(A) $\frac{10}{5}$ (B) $\frac{6}{5}$ (C) $\frac{5}{5}$ (D) $\frac{6}{10}$

(B) $\frac{6}{5}$

2. Asta wants to find the product of $3 \times \frac{4}{5}$.
Select a way to write $3 \times \frac{4}{5}$ as the product of a whole number and a unit fraction.

$$4 \times \frac{3}{5}$$

$$12 \times \frac{1}{5}$$

$$6 \times \frac{1}{5}$$

$3 \times \frac{4}{5} =$ $12 \times \frac{1}{5}$

3. Donna buys some fabric to make placemats. She uses 9 different types of fabric to make her design. She needs $\frac{1}{5}$ yard of each type of fabric. Use the following equation. Write the number in the box to make the statement true.

$$\frac{9}{5} = \underline{9} \times \frac{1}{5}$$

4. Rico is making 4 batches of salsa. Each batch needs $\frac{2}{3}$ cup of corn. He only has a $\frac{1}{3}$ -cup measure. How many times must Rico measure $\frac{1}{3}$ cup of corn to have enough for all of the salsa?

8 _____ times

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Name _____

Practice Test

5. Sarah is making 4 batches of granola bars. She adds $\frac{7}{8}$ cup peanuts to each batch. Her measuring cup holds $\frac{1}{8}$ cup. How many times must Sarah measure $\frac{1}{8}$ cup of peanuts to have enough for the granola bars?

(A) 11 times (B) 16 times (C) 28 times (D) 32 times

(C) 28 times

6. Oleg wants to find the product of $4 \times \frac{2}{5}$.
Select a way to write $4 \times \frac{2}{5}$ as the product of a whole number and a unit fraction.

$$6 \times \frac{1}{5}$$

$$2 \times \frac{4}{5}$$

$$8 \times \frac{1}{5}$$

$4 \times \frac{2}{5} =$ $8 \times \frac{1}{5}$

7. Which fraction shows the product of $3 \times \frac{5}{6}$?

(A) 5 (B) $\frac{30}{6}$ (C) $\frac{15}{6}$ (D) $\frac{8}{6}$

(C) $\frac{15}{6}$

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Practice Test

Practice Test

4.NF.B.4c
Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.

Name _____

1. Molly is baking for the Moms and Muffins event at her school. She will bake 4 batches of banana muffins. She needs $\frac{3}{4}$ cups of bananas for each batch of muffins.

Part A

Molly completed the multiplication below and said she needed $1\frac{3}{4}$ cups of bananas for 4 batches of muffins. What is Molly's error?

$$4 \times \frac{3}{4} = 7 \times \frac{1}{4} = \frac{7}{4} = 1\frac{3}{4}$$

Molly tried to multiply a unit fraction by a whole number, but she added 4 + 3 to get 7 instead of multiplying 4 × 3 to get 12.

Part B

What is the correct number of cups Molly needs for 4 batches of muffins? Explain how you found your answer.

3 cups; Possible explanation: First I multiplied a unit fraction by a whole number by changing $4 \times \frac{3}{4}$ to $12 \times \frac{1}{4}$. Then, I multiplied and got $12 \times \frac{1}{4}$, which is equal to 3.

2. Theo is comparing shark lengths. He learned that a dogfish shark is $\frac{2}{5}$ meter long. A blue shark is 5 times as long as a dogfish shark. Find the length of a blue shark.

A blue shark is meters long.

3. Mimi recorded a play that lasted $\frac{2}{3}$ hour. She watched it 3 times over the weekend to study the lines. How many hours did Mimi spend watching the play? Show your work.

2 hours; $\frac{2}{3} \times 3 = \frac{6}{3} = 2$



Practice Test

Name _____

4. Select the correct product for the equation.

$\frac{8}{16}$

$\frac{32}{8}$

$\frac{16}{8}$

$\frac{20}{8}$

$4 \times \frac{5}{8} = \frac{20}{8}$

$4 \times \frac{4}{8} = \frac{16}{8}$

5. Mrs. Burnham is making modeling clay for her class. She needs $\frac{2}{3}$ cup of warm water for each batch.

Part A

Mrs. Burnham has a 1-cup measure that has no other markings. Can she make 6 batches of modeling clay using only the 1-cup measure? Describe two ways you can find the answer.

Yes; Possible explanation: She needs $6 \times \frac{2}{3}$ cups of water. I can use a number line to make 6 jumps of $\frac{2}{3}$. The last jump ends at $\frac{12}{3}$ or 4. I could also list the first 6 multiples of $\frac{2}{3}$: $\frac{2}{3}, \frac{4}{3}, \frac{6}{3}, \frac{8}{3}, \frac{10}{3}, \frac{12}{3}$. The sixth multiple is $\frac{12}{3}$, which is 4 whole cups. She can use the 1-cup measure 4 times to make 6 batches.

Part B

The modeling clay recipe also calls for $\frac{1}{2}$ cup of cornstarch. Nikki says Mrs. Burnham will also need 4 cups of cornstarch to make 6 batches of clay. Do you agree or disagree? Explain.

I disagree; Possible explanation: $6 \times \frac{1}{2} = \frac{6}{2} = 3$. She needs 3 cups of cornstarch, not 4.

6. Mr. Tuyen uses $\frac{5}{8}$ of a tank of gas each week to drive to and from his job. How many tanks of gas does Mr. Tuyen use in 5 weeks? Write your answer two different ways.

Mr. Tuyen uses $\frac{25}{8}$ or $3\frac{1}{8}$ tanks of gas.



Name _____

Practice Test
4.NF.C.5
Understand decimal notation for fractions, and compare decimal fractions.

1. Henry is making a recipe for biscuits. The recipe calls for $\frac{5}{10}$ kilogram flour and $\frac{9}{100}$ kilogram sugar.

Part A
If Henry measures correctly and combines the two amounts, how much flour and sugar will he have? Show your work.

59 kilogram; $\frac{5}{10} = \frac{50}{100}$; $\frac{50}{100} + \frac{9}{100} = \frac{59}{100}$

Part B
How can you write your answer as a decimal?

0.59 kilogram

2. Ingrid is making a toy car. The toy car is $\frac{5}{10}$ meter high without the roof. The roof is $\frac{18}{100}$ meter high. What is the height of the toy car with the roof? Choose a number from each column to complete an equation to solve.

$$\frac{5}{100} = \frac{15}{100} + \frac{50}{100}$$

+

$$\frac{18}{100} = \frac{81}{100} + \frac{18}{10}$$

=

$$\frac{68}{10} = \frac{32}{100} + \frac{68}{100}$$

=

meter high

3. Steve is measuring the growth of a tree. He drew this model to show the tree's growth in meters. Which fraction, mixed number, or decimal does the model show? Mark all that apply.

1.28

120.8

0.28

$2\frac{8}{100}$

$1\frac{28}{100}$

$1\frac{28}{10}$

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4. Jen is making a recipe for pancakes. The recipe calls for $\frac{4}{10}$ kilogram flour and $\frac{12}{100}$ kilogram sugar.

Part A
If Jen measures correctly and combines the two amounts, how much flour and sugar will she have? Show your work.

52 kilogram; $\frac{4}{10} = \frac{40}{100}$; $\frac{40}{100} + \frac{12}{100} = \frac{52}{100}$

Part B
How can you write your answer as a decimal?

0.52 kilogram

5. Jack drew a model to represent the number of miles from his home to the park. What decimal represents the part of the model that is shaded?

1.35

6. Charlie's model shows the number of hours he exercised yesterday. Which fraction, mixed number, or decimal does the model show? Mark all that apply.

1.33

$1\frac{33}{100}$

133

$1\frac{3}{100}$

13.03

$1\frac{33}{10}$

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STOP

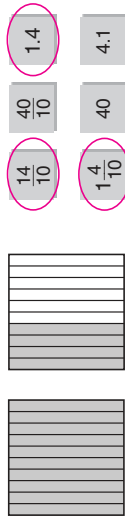
Practice Test

Practice Test

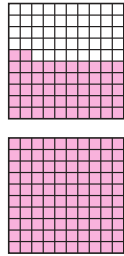
4.NF.C.6
Understand decimal notation for fractions, and compare decimal fractions.

Name _____

1. Select a number shown by the model. Mark all that apply.



2. Shade the model to show $1\frac{52}{100}$. Then write the mixed number in decimal form.



1.52

3. Complete the table.

Bills and Coins	Money Amount (\$)	Fraction or Mixed Number	Decimal
8 pennies	\$0.08	$\frac{8}{100}$	0.08
Possible answer: 2 quarters	\$0.50	$\frac{5}{10}$ or $\frac{50}{100}$	0.50
Possible answer: 9 dimes	\$0.90	$\frac{90}{100}$ or $\frac{9}{10}$	0.90
4 \$1 bills 5 pennies	\$4.05	$4\frac{5}{100}$	4.05

4. The point on the number line shows the number of seconds it took an athlete to run the 40-yard dash. Write the decimal that correctly names the point.

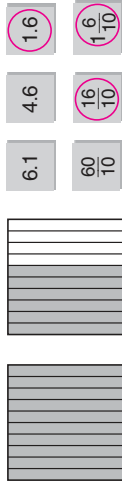


GO ON

Practice Test

Name _____

5. Select a number shown by the model. Mark all that apply.



6. Ryan sold a jigsaw puzzle at a yard sale for three dollars and five cents. Which names this money amount in terms of dollars? Mark all that apply.

- A 35.0 3.05
 $3\frac{5}{100}$ E 3.50
 \$3.05 F $\frac{305}{10}$

7. Trisha walked $\frac{9}{10}$ of a mile to school. Shade the model. Then write the decimal to show how far Trisha walked.



Trisha walked **0.9** mile to school.

8. Cora paid $\frac{65}{100}$ of a dollar to buy a postcard from Grand Canyon National Park in Arizona. What is $\frac{65}{100}$ written as a decimal in terms of dollars?

\$0.65

9. The U.S. Senate in Washington D.C. has 100 elected members. Last year, 30 senators ran for reelection. What decimal is equivalent to $\frac{30}{100}$?

0.3 or 0.30



Name _____

Practice Test
4.NF.C.7
Understand decimal notation for fractions, and compare decimal fractions.

1. Which inequalities are true? Mark all that apply.

A $0.21 < 0.27$

B $0.4 > 0.45$

C $\$3.21 > \0.20

D $1.9 < 1.90$

E $6.2 > 6.02$

2. Luke lives 0.4 kilometer from a skating rink. Mark lives 0.25 kilometer from the skating rink.

Part A
Who lives closer to the skating rink? Explain.

Mark; Possible explanation: 0.4 is 4 tenths and 0.25 is 2 tenths 5 hundredths. Compare the tenths. Since 4 tenths > 2 tenths, Luke lives farther from the rink, so Mark lives closer.

Part B
How can you write each distance as a fraction? Explain.

Possible answers: $0.4 = \frac{4}{10}$ and $0.25 = \frac{25}{100}$. Possible explanation: 0.4 is the same as 4 tenths and 0.25 is the same as 25 hundredths.

Part C
Luke is walking to the skating rink to pick up a practice schedule. Then he will walk to Mark's house. Will he walk more than one kilometer or less than one kilometer? Explain.

Less than a kilometer; Possible explanation: $\frac{4}{10} < \frac{5}{10}$ or $\frac{2}{5}$ and $\frac{25}{100} < \frac{50}{100}$ or $\frac{1}{4}$. Therefore, $\frac{4}{10} + \frac{25}{100} < \frac{1}{2} + \frac{1}{2}$. Since $\frac{1}{2} + \frac{1}{2} = 1$, I know that $\frac{4}{10} + \frac{25}{100} < 1$.

GO ON

Name _____

Practice Test

3. For numbers 3a–3b, choose the symbol that makes the statement true.

3a. 0.2 $<$ 0.25

3b. 4.8 $>$ 4.08

4. Gene lives 0.6 mile from school. Kate lives 0.51 mile from school.

Part A
Who lives closer to school? Explain.

Kate; Possible explanation: 0.6 is 6 tenths and 0.51 is 5 tenths 1 hundredth. If I compare the tenths, I find that 6 tenths > 5 tenths. Gene lives farther from the school, so Kate lives closer.

Part B
How can you write each distance as a fraction? Explain.

Possible answers: $0.6 = \frac{6}{10}$ and $0.51 = \frac{51}{100}$. Possible explanation: 0.6 is the same as 6 tenths and 0.51 is the same as 51 hundredths.

Part C
Gene is walking to school to get a book he forgot. Then he will walk to Kate's house. Will he walk more than 1 mile or less than 1 mile? Explain.

More than a mile; Possible explanation: $\frac{6}{10} > \frac{5}{10}$ or $\frac{1}{2}$ and $\frac{51}{100} > \frac{50}{100}$ or $\frac{1}{2}$. So $\frac{6}{10} + \frac{51}{100} > \frac{1}{2} + \frac{1}{2}$. Since $\frac{1}{2} + \frac{1}{2} = 1$, I know that $\frac{6}{10} + \frac{51}{100} > 1$.

STOP

Practice Test

4.MD.A.1
Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

Name _____

1. Select the measures that are equal. Mark all that apply.

- (A) 6 feet
- (D) 600 inches
- (E) 12 feet
- (F) 45 feet
- (G) 540 inches

2. Jackie made 6 quarts of lemonade. Jackie says she made 3 pints of lemonade. Explain Jackie's error. Then find the correct number of pints of lemonade.

Possible explanation: Jackie divided the number of quarts by 2. There are 2 pints in each quart. She should have multiplied the number of quarts by 2; $6 \times 2 = 12$, so Jackie made 12 pints of lemonade.

3. Sabita made this table to relate two customary units of liquid volume.

Part A

List the number pairs for the table. Then describe the relationship between the numbers in each pair.

1 and 2, 2 and 4, 3 and 6, 4 and 8, 5 and 10; Possible description: The second number in each pair is two times as great as the first number in each pair.

Part B

Label the columns of the table. Explain your answer.

Possible labels are given; Possible explanation: Pints and cups are both customary units of liquid volume. The table shows a pattern for the relationship between pints and cups since 1 pint is two times as much as 1 cup.

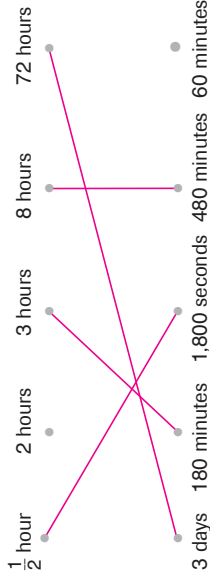
Pints	Cups
1	2
2	4
3	6
4	8
5	10



Practice Test

Name _____

4. Draw lines to match equivalent time intervals. Items may be matched more than once or not at all.



5. Mrs. DeMarco wants to estimate the height of her garage door. Select the best benchmark for her to use.

- (A) the width of a paperclip
- (B) the length of a baseball bat
- (C) the height of a license plate
- (D) the distance she can walk in 20 minutes

6. Lauren bought two items to make dinner. She says the difference in mass between the items she bought is 4,000 grams. Which two items did Lauren buy?

- (A) turkey; 6 kilograms
- (B) crate of apples; 8 kilograms
- (C) bag of ears of corn; 3 kilograms
- (D) bag of sweet potatoes; 2 kilograms
- (E) bag of stuffing; 1 kilogram

7. Write the equivalent measurements in each column.

- 2,000 millimeters
- 250 millimeters
- 250 millimeters
- 200 centimeters
- 0.200 meter
- 250 millimeters
- 200 centimeters
- 0.25 meter
- 20 decimeters

2 meters	25 centimeters	200 decimeters
2,000 millimeters	25 meter	200 meters
200 centimeters	100 meter	1,000 meters
20 centimeters	0.25 meter	0.200 meters
	250 millimeters	20 decimeters



Name _____

Practice Test

4.MD.A.2
Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

GO ON

1. After selling some old books and toys, Gwen and her brother Max had 5 one-dollar bills, 6 quarters, and 8 dimes. They agreed to divide the money equally.

Part A

What is the total amount of money that Gwen and Max earned? Explain.

\$7.30; Possible explanation: I counted the one-dollar bills to get \$5.00. Then I counted on 6 quarters: \$5.25, \$5.50, \$5.75, \$6.00, \$6.25, \$6.50. Then I counted on 8 dimes: \$6.60, \$6.70, \$6.80, \$6.90, \$7.00, \$7.10, \$7.20, \$7.30.

Part B

Max said that he and Gwen cannot get equal amounts of money because 5 one-dollar bills cannot be divided evenly. Do you agree with Max? Explain.

No; Possible explanation: They can divide the bills and coins so that Max and Gwen each have the same amount of money. One person will have 3 one-dollar bills, 1 quarter and 4 dimes, and the other will have 2 one-dollar bills, 5 quarters, and 4 dimes.

2. Kylee and two of her friends are at a museum. They find \$3.63 on the ground. If Kylee and her friends share the money equally, how much will each person get?

Each person will get \$1.21

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Practice Test

Name _____

Practice Test

STOP

3. Tran has \$5.82. He is saving for a video game that costs \$9. Tran needs \$3.18 more to have enough money for the game.

4. Wendy is making potato salad for a picnic. One sack of potatoes weighs 14 pounds. What is the weight of a sack of potatoes in ounces? 224 ounces

5. Anya arrived at the library on Saturday morning at 11:10 A.M. She left the library 1 hour 20 minutes later. Draw jumps on the time line to show the end time.

Anya left the library at 12:30 P.M.

6. Chaz needs \$4.77 for new batteries. He has \$3. He needs \$1.77 more to have enough money for the batteries.

7. Kyle is practicing for a 1-mile race. His normal time is 8 minutes 8 seconds. What is Kyle's normal time, in seconds? 488 seconds

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Practice Test

Practice Test

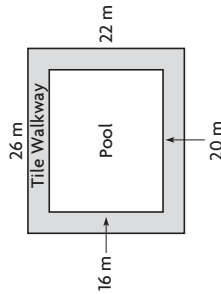
4.MD.A.3
Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

Name _____

1. Maura wants to make a rectangular picture frame with a perimeter of 50 inches. Which pairs of dimensions could she use? Mark all that apply.

- A length: 25 inches width: 2 inches
- B length: 20 inches width: 5 inches
- C length: 17 inches width: 8 inches
- D length: 15 inches width: 5 inches
- E length: 15 inches width: 10 inches

2. The swimming club's indoor pool is in a rectangular building. Marco is laying tile around the rectangular pool.



Part A

What is the area of the pool and the combined area of the pool and the walkway? Show your work. **Check students' work**

Pool: $20 \times 16 = 320$; 320 square meters
Pool and walkway: $26 \times 22 = 572$; 572 square meters

Part B

How many square meters of tile will Marco need for the walkway? Explain how you found your answer.

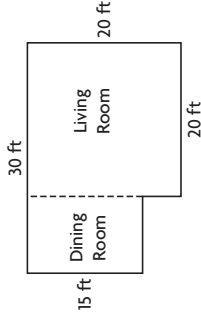
252 square meters; Possible answer: I subtracted the area of the pool from the combined area of the pool and walkway; $572 - 320 = 252$, so Marco will need 252 square meters of tile.



Practice Test

Name _____

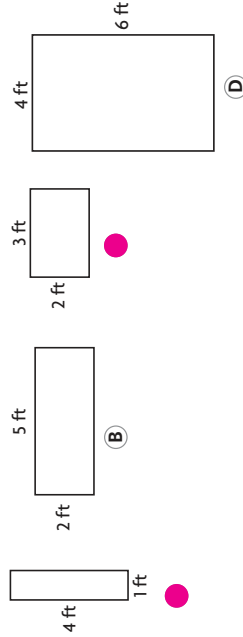
3. Ms. Bennett wants to buy carpeting for her living room and dining room.



Explain how she can find the amount of carpet she needs to cover the floor in both rooms. Then find the amount of carpet she will need.

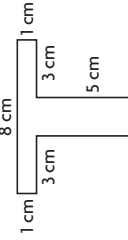
Possible explanation: She can find the area of each rectangle and then find the sum. The area of the living room is 20×20 or 400 square feet. The area of the dining room is 15×10 or 150 square feet. The sum of the two rooms is $400 + 150$ or 550 square feet of carpeting.

4. Which rectangle has a perimeter of 10 feet? Mark all that apply.



5. Tricia is cutting her initial from a piece of felt. Which expressions correctly complete the statement?

Tricia can add the products of 1×8 and 3×5 and 5×2 and 1×3 and 1×5 and 2×3



to find the square centimeters of felt she needs.



Name _____

Practice Test
4.MD.B.4
Represent and interpret data.

Time Practicing Gymnastics (in hours)
1, 1, 3, 3, 1, 1, 1, 1, 3, 1
4, 4, 4, 4, 2

1. Josh practices gymnastics each day after school. The data shows the lengths of time Josh practiced gymnastics for 2 weeks.

Part A
Make a tally table and line plot to show the data.

Time (in hours)	Tally
$\frac{1}{4}$	
$\frac{1}{2}$	
$\frac{3}{4}$	
1	

$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1
X X	X	X X X X	X X X X

$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1
X X	X	X X X X	X X X X

Time Practicing Gymnastics (in hours)

Part B
Explain how you used the tally table to label the numbers and plot the Xs.

Possible explanation: First, I ordered the data from least to greatest time to complete the tally table. Then, I labeled the fraction lengths on the number line from the least value to the greatest value. Finally, I plotted an X for each data point.

Part C
What is the difference between the longest time and shortest time Josh spent practicing gymnastics?
 $\frac{3}{4}$ hour

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Practice Test



Name _____

Practice Test

2. Leah has cheerleading practice each day after school. The data shows the lengths of time Leah had practice for 2 weeks.

Part A
Make a tally table and line plot to show the data.

Time (in hours)	Tally
$\frac{1}{3}$	
$\frac{2}{3}$	
1	

$\frac{1}{3}$	$\frac{2}{3}$	1
X X X	X X X	X X X X

$\frac{1}{3}$	$\frac{2}{3}$	1
X X X	X X X	X X X X

Time at Cheerleading Practice (in hours)

Part B
What is the difference between the longest time and shortest time Leah spent at cheerleading practice?
 $\frac{2}{3}$ hour

3. The table shows the distances some students walked to school. Complete the line plot to show the data.

Distance Students Walked (in miles)	Number of Students
$\frac{1}{5}$	2
$\frac{2}{5}$	5
$\frac{3}{5}$	3
$\frac{4}{5}$	4
$\frac{5}{5}$	5

$\frac{1}{5}$	$\frac{2}{5}$	$\frac{3}{5}$	$\frac{4}{5}$	1
X X	X X X X X	X X X	X X X X	X

$\frac{1}{5}$	$\frac{2}{5}$	$\frac{3}{5}$	$\frac{4}{5}$	1
X X	X X X X X	X X X	X X X X	X

Distance Students Walked (in miles)

How many students walked less than 1 mile to school?
11 students

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Practice Test



Name _____

4. An angle measures 125° . Through what fraction of a circle does the angle turn?

$\frac{125}{360}$ of a circle

5. Write the letter for each angle measure in the correct box.

- (A) 125° (B) 90° (C) 180° (D) 30° (E) 45° (F) 95°

acute D, E	obtuse A, F	right B	straight C
----------------------	-----------------------	-------------------	----------------------

6. Write the letter for each angle measure in the correct box.

- (A) 20° (B) 77° (C) 111° (D) 180° (E) 175° (F) 90°

acute A, B	obtuse C, E	right F	straight D
----------------------	-----------------------	-------------------	----------------------

7. A gear in a watch turns clockwise, in one-degree sections, a total of 300 times.

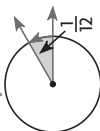
The gear has turned a total of **300** degrees.

8. A carousel turns counterclockwise, in one-degree sections, a total of 280 times.

The carousel has turned a total of **280** degrees.



4.MD.C.5.a/4.MD.C.5.b
Geometric measurement: understand concepts of angle and measure angles.



Name _____

1. An angle represents $\frac{1}{12}$ of a circle. Use the numbers to show how to find the measure of the angle in degrees.

$\frac{1}{12} = \frac{1 \times 30}{12 \times 30} = \frac{30}{360}$

The angle measure is **30**°.

2. For numbers 2a–2b, select the fraction that makes a true statement about the figure.

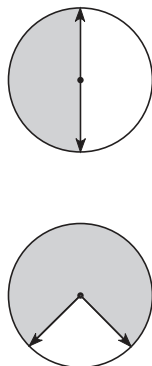


Figure 1

Figure 2

$\frac{1}{4}$ $\frac{1}{2}$ **$\frac{3}{4}$**

2a. The angle in Figure 1 represents a _____ turn.

$\frac{1}{4}$ **$\frac{1}{2}$** $\frac{3}{4}$

2b. The angle in Figure 2 represents a _____ turn.

3. An angle represents $\frac{1}{10}$ of a circle. Use the numbers to show how to find the measure of the angle in degrees.

$\frac{1}{10} = \frac{1 \times 36}{10 \times 36} = \frac{36}{360}$

The angle measure is **36**°.



Name _____

Practice Test
4.MD.C.6
Geometric measurement; understand concepts of angle and measure angles.

1. Use a protractor to find the measure of the angle.
The angle measures 40°.

2. Use a protractor to find the measure of each angle. Write each angle and its measure in a box ordered by the measure of the angles from least to greatest.
Answers will vary.

Angle: **B**
Measure: **100°**

Angle: **C**
Measure: **120°**

Angle: **A**
Measure: **140°**

3. Choose the word or number to complete a true statement about $\angle JKL$.

acute
obtuse
right

$\angle JKL$ is a(n) _____ angle that has a measure of _____.

60°

120°

135°

GO ON

Practice Test

Name _____

Practice Test

4. Use a protractor to find the measures of the unknown angles.

Answers will vary.
 $m\angle x = \underline{70^\circ}$ $m\angle y = \underline{110^\circ}$

What do you notice about the measures of the unknown angles? Is this what you would have expected? Explain your reasoning.

Possible answer: The measures of the angles have a sum of 180°. Even though the angles are divided by a large bar, this makes sense because the angles make up a straight angle.

5. Use a protractor to find the measure of each angle. Write each angle and its measure in a box ordered by the measure of the angles from least to greatest.

Answers will vary.

Angle: **B**
Measure: **80°**

Answers will vary.

Angle: **A**
Measure: **130°**

Angle: **C**
Measure: **150°**

STOP

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Practice Test

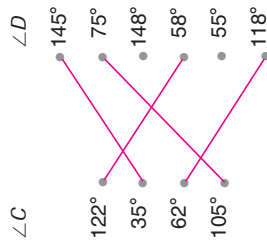
Practice Test

4.MD.C.7

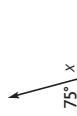
Geometric measurement: understand concepts of angle and measure angles.

Name _____

1. Match the measure of each $\angle C$ with the measure of $\angle D$ that forms a straight angle.



2. Renee drew the figure shown. Which statements are true? Mark all that apply.



- The measure of a straight angle is 180° .
- To find the measure of angle x , Renee can subtract 75° from 180° .
- The measure of angle x is 115° .
- The measure of angle x is 105° .

3. A circle is divided into parts. Which sum could represent the angle measures that make up the circle? Mark all that apply.

- $120^\circ + 120^\circ + 120^\circ$
- $47^\circ + 61^\circ + 78^\circ + 83^\circ + 101^\circ$
- $15^\circ + 40^\circ + 53^\circ + 62^\circ + 90^\circ + 100^\circ$
- $20^\circ + 30^\circ + 60^\circ + 70^\circ$

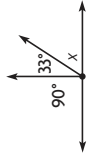


Practice Test

Name _____

4. Use the numbers and symbols to write an equation that can be used to find the measure of the unknown angle.

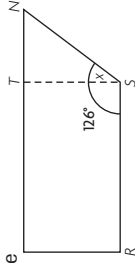
33	45	90	180
x	=	+	x



$90 + 33 + x = 180$

What is the measure of the unknown angle? 57°

5. Melanie cuts a rectangle out of a piece of scrap paper as shown. She wants to calculate the angle measure of the piece that is left over.



Part A

Draw a bar model to represent the problem. **Possible drawing is shown.**



Part B

Write and solve an equation to find x .

$m\angle TSR + m\angle NST = m\angle NSR; 90 + x = 126; x = 36$

The angle measures 36° .

6. A circle is divided into parts. Which sum could represent the angle measures that make up the circle? Mark all that apply.

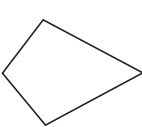
- $120^\circ + 120^\circ + 120^\circ + 120^\circ$
- $25^\circ + 40^\circ + 80^\circ + 105^\circ + 110^\circ$
- $33^\circ + 82^\circ + 111^\circ + 50^\circ + 84^\circ$
- $40^\circ + 53^\circ + 72^\circ + 81^\circ + 90^\circ + 34^\circ$



Practice Test
4.G.A.1
Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

Name _____

1. Gavin is designing a kite. He sketched a picture of the kite. How many right angles does the kite appear to have?



_____ right angles

2. Write the word that describes each part of Figure A written below.

ray

line

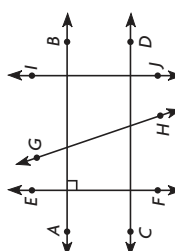
line segment


acute angle

right angle

\overleftrightarrow{EB} **line segment** $\angle EBG$ **right angle**
 \overleftrightarrow{AB} **line** $\angle CGB$ **acute angle**
 \overrightarrow{GA} **ray**

3. Choose the labels to make a true statement.





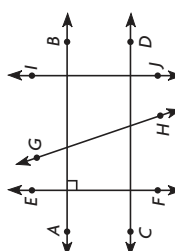
_____ is parallel to _____


\overleftrightarrow{GH}

\overleftrightarrow{CD}

\overleftrightarrow{AB}

3. Choose the labels to make a true statement.





_____ is parallel to _____

\overleftrightarrow{EF}

\overleftrightarrow{CD}

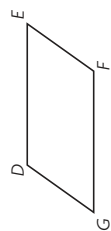
\overleftrightarrow{GH}

GO ON

Practice Test


Name _____

4. Mike drew a figure with opposite sides parallel. Write the pairs of parallel sides. What figure is it?



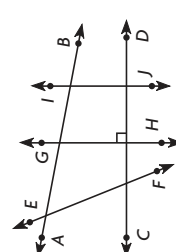
\overleftrightarrow{DG} is parallel to \overleftrightarrow{FE} , and \overleftrightarrow{DE} is parallel to \overleftrightarrow{GF} ; the figure is a parallelogram.


5. What term best describes the figure shown below?



parallel lines

6. Choose the labels to make a true statement.





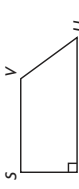
_____ is parallel to _____

\overleftrightarrow{GH}

\overleftrightarrow{IJ}

\overleftrightarrow{AB}

7. Lisa drew a figure with two sides perpendicular. Write the pair of perpendicular sides. What figure is it?



\overleftrightarrow{ST} is perpendicular to \overleftrightarrow{TU} or \overleftrightarrow{SV} ; the figure is a trapezoid.

STOP

Practice Test

4.G.A.2
Draw and identify lines and angles,
and classify shapes by properties of their lines
and angles.

Name _____

1. Classify the figure. Select all that apply.



- quadrilateral
- trapezoid
- parallelogram
- rectangle
- rhombus
- square

2. Jeremy drew Figure 1, and Louisa drew Figure 2.

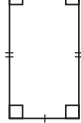


Figure 1

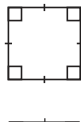


Figure 2

Part A

Jeremy says both figures are rectangles. Do you agree with Jeremy? Support your answer.

Yes; Possible answer: Both figures have 2 pairs of parallel sides, opposite sides that are equal in length, and 4 right angles.

Part B

Louisa says both figures are rhombuses. Do you agree with Louisa? Support your answer.

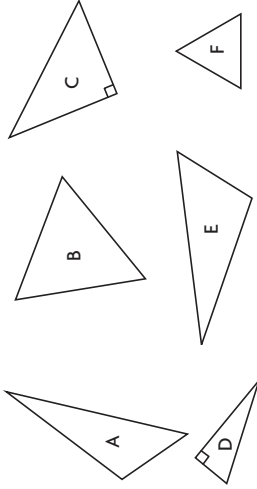
No; Possible answer: Figure 2 is a rhombus since it has 2 pairs of parallel sides and 4 sides of equal length. Figure 1 does not have 4 sides of equal length, so it cannot be a rhombus.



Practice Test

Name _____

3. Write the letter of the triangle under its correct classification.



Acute Triangle	Obtuse Triangle	Right Triangle
B, F	A, E	C, D

4. Jessica made a pennant that looks like a triangle. How can you classify the triangle based upon its angles?



The triangle is a(n) **right** triangle.

5. Alison has a sticker that looks like a quadrilateral that has 2 pairs of parallel sides and no right angles. How can you classify the figure?

Possible answers given.

The quadrilateral is a **trapezoid, parallelogram**.



Practice Test
4.G.A.3
Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

Name _____

1. Naomi leaves for her trip to Los Angeles on the 12th day of August. Since August is the 8th month, Naomi wrote the date as shown.

8/12

Naomi says all the numbers she wrote have line symmetry. Is she correct? Explain your thinking.

No; Possible explanation: Naomi is incorrect. The number 2 does not have a line of symmetry because if it were cut out, there would be no way to fold it in half so that the two parts match exactly.

GO ON

Practice Test

2. Match each figure with the correct number of lines of symmetry it has.

	A		B		D
	C		A		B
	1 line of symmetry		B		2 lines of symmetry
	2 lines of symmetry		C		More than 2 lines of symmetry
	More than 2 lines of symmetry		D		0 lines of symmetry

3. Claudia drew the figure below. Draw a line of symmetry on Claudia's figure.

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Practice Test

Name _____

4. Debbie leaves for her trip to San Diego on the 13th day of July. Since July is the 7th month, Debbie wrote the date as shown.

7/13

Debbie says all the numbers she wrote have line symmetry. Is she correct? Explain your thinking.

No; Possible explanation: Debbie is incorrect. The number 7 does not have a line of symmetry because if it were cut out, there would be no way to fold it in half so that the two parts match exactly.

STOP

Practice Test

5. Match each figure with the correct number of lines of symmetry it has.

	A		B		D
	C		C		More than 2 lines of symmetry
	0 lines of symmetry		D		2 lines of symmetry
	1 line of symmetry		A		More than 2 lines of symmetry
	2 lines of symmetry		C		0 lines of symmetry

6. Circle the letter that does not have line symmetry.

FEET

7. Jared found the number of lines of symmetry for the figure. How many lines of symmetry does it have?

2 lines of symmetry

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