

Name \_\_\_\_\_

**Practice Test**  
**3.OA.A.1**  
*Represent and solve problems involving multiplication and division.*

**GO ON**

1. Alondra makes 4 necklaces. She uses 5 beads on each necklace. Which number sentence could be used to find the number of beads Alondra uses?

$4 \times 5 =$

$4 + 4 + 4 + 4 =$

$5 + 5 + 5 + 5 + 5 =$

$5 + 4 =$

2. A waiter carried 6 baskets with 5 dinner rolls in each basket. How many dinner rolls did he carry? Show your work.

**30** \_\_\_\_\_ dinner rolls

3. Lucy and her mother made tacos. They put 2 tacos on each of 7 plates.

Select the number sentences that show all the tacos Lucy and her mother made. Mark all that apply.

$2 + 7 = 9$

$7 + 7 = 14$

$8 + 6 = 14$

$2 \times 7 = 14$

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**1**

**Practice Test**

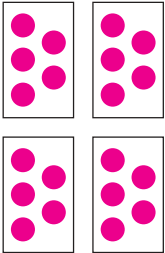
Name \_\_\_\_\_

**Practice Test**

**STOP**

4. A bookcase has 4 shelves. Each shelf holds 5 books. How many books are in the bookcase?

Draw counters to model the problem. Then explain how you solved the problem.



**20 books; Possible explanation: I drew 5 counters in each group, and then I skip counted by 5s. 5, 10, 15, 20**

5. Carlos spent 5 minutes working on each of 8 math problems. Which number sentence shows the total number of minutes Carlos spent on the math problems?


$8 \times 8 = 64$

$7 + 6 = 13$

$5 + 8 = 13$

$5 \times 8 = 40$

6. There are 3 boats on the lake. Six people ride in each boat. How many people ride in the boats? Draw circles to model the problem and explain how to solve it.



**18** \_\_\_\_\_ people

**Possible explanations: Students may count the number of circles, add  $6 + 6 + 6$ , or multiply  $3 \times 6$ .**

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**2**

**Practice Test**

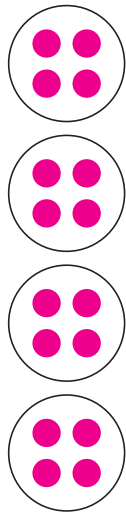
**Practice Test**

**3.OA.A.2**  
Represent and solve problems involving multiplication and division.

Name \_\_\_\_\_

- The coach separated the 18 players at lacrosse practice into 3 different groups. How many players were in each group? \_\_\_\_\_ **6** players

- Tyrone took 16 pennies from his bank and put them in 4 equal stacks. How many pennies were in each stack? Show your work.



\_\_\_\_\_ **4** pennies

- Darius bakes 18 muffins for his friends. He gives each of his friends an equal number of muffins and has none left over.

**Part A**

Draw a picture to show one way that Darius could have divided the muffins and complete the sentence.

**Check students' work. Answers may vary.**

Darius gave muffins to **Possible answers: 2, 3, 6, 9, or 18** friends.

**Part B**

Could Darius have divided all of his muffins equally among 4 of his friends? Explain why or why not.

**Possible explanation: No, 18 cannot be divided into 4 groups of whole muffins with none left over.**



**Practice Test**

Name \_\_\_\_\_

- A workbook is 64 pages long. If each chapter is 8 pages long, how many chapters are there? \_\_\_\_\_ **8** chapters

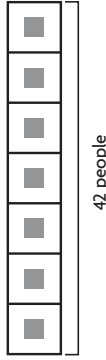
- Elizabeth has 12 horses on her farm. She puts an equal number of horses in each of 3 pens. How many horses are in each pen?

Circle a number that makes the sentence true.

There are 4 horses in each pen.

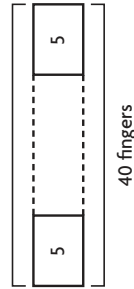
9                      36

- There are 7 cars in an amusement park ride. There are 42 people divided equally among the 7 cars. How many people ride in one car?



\_\_\_\_\_ **6** people

- There were 40 fingers total on the number of gloves Mrs. Edwards knitted. How many gloves did Mrs. Edwards knit?



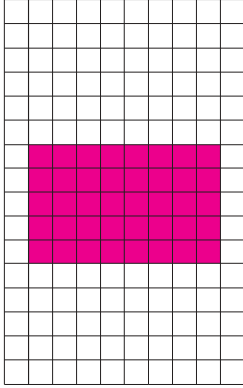
\_\_\_\_\_ **8** gloves



Name \_\_\_\_\_

**Practice Test**  
3.OA.A.3  
*Represent and solve problems involving multiplication and division.*

1. José buys 6 bags of flour. Each bag weighs 5 pounds. How many pounds of flour did José buy?  
30 pounds
  
2. Marissa is buying a new rug. The rug is 8 feet long and 4 feet wide. What is the area of the rug?  
 $8 \times 4 = 32$  square feet
  
3. Ana used 49 strawberries to make strawberry smoothies. She used 7 strawberries in each smoothie. How many strawberry smoothies did Ana make?  
7 strawberry smoothies
  
4. Chris plants 40 pumpkin seeds in 5 equal rows. How many seeds does Chris plant in each row?  
Make an array to represent the problem. Then solve the problem.



8 seeds

**GO ON**

Practice Test

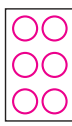
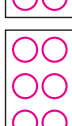


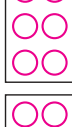
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5

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**Practice Test**

5. Mrs. Ruiz sorted spools of thread into 6 boxes. Each box holds 6 spools. How many spools of thread does Mrs. Ruiz have?  
Draw circles to model the problem. Then solve. Explain how you solved the problem.

**36 spools; Possible explanations: Students may multiply  $6 \times 6$ , count by sixes, or multiply  $2 \times 6 = 12$  and triple the product.**

6. Ming's garden has an area of 35 square feet. The length of the garden is 7 feet. What is the width of Ming's garden?  
 $35 \div 7 = a$   
 $7 \times a = 35$

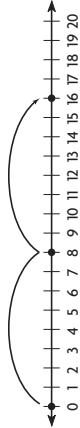
A 4 feet

C 6 feet

B 5 feet

D 7 feet

7. Lindsay went hiking for two days in Yellowstone National Park. The first jump on the number line shows how many birds she saw the first day. She saw the same number of birds the next day.



Write the multiplication sentence that the number line shows.

$2 \times 8 = 16$

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6

Practice Test

Name \_\_\_\_\_

5. The camping club wants to rent rafts. Each raft can hold 8 people. Which equation could be used to find how many rafts are needed for 32 people?

(A)  $8 \times 32 = \blacksquare$   
 (B)  $32 \times \blacksquare = 8$   
 (C)  $\blacksquare \times 8 = 32$   
 (D)  $32 \times 8 = \blacksquare$

6. Which number makes the equation true?

$36 \div 4 = \blacksquare$

(A) 32  
 (B) 16  
 (C) 13  
 (D) 9

7. Write the number that makes the equation true.

$6 \times \underline{4} = 24$

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Practice Test

3.OA.A.4  
 Represent and solve problems involving multiplication and division.

Name \_\_\_\_\_

1. In which number sentences is the unknown factor 6? Mark all that apply.

(A)  $4 \times \blacksquare = 32$   
 (B)  $\blacksquare \times 6 = 36$   
 (C)  $8 \times \blacksquare = 49$   
 (D)  $\blacksquare \times 3 = 18$

2. Devon has 80 books to pack in boxes. She packs 10 books in each box. How many boxes does she need?

Write an equation using the letter  $n$  to stand for the unknown factor. Explain how to find the unknown factor.

$n \times 10 = 80$ . Possible explanation: I can draw an array of 80 squares with 10 squares in each row. There are 8 rows, so  $n = 8$ . Devon needs 8 boxes.

3. Circle the unknown factor and quotient.

$8 \times \begin{array}{|c|} \hline \textcircled{6} \\ \hline \end{array} = 48$       $\begin{array}{|c|} \hline 7 \\ \hline \end{array} = 48 \div \begin{array}{|c|} \hline 8 \\ \hline \end{array}$

4. Keith arranged 40 toy cars in 8 equal rows. How many toy cars are in each row?

$\underline{5}$  toy cars

GO ON

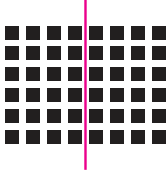
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Practice Test

3.OA.B.5  
*Understanding properties of multiplication and the relationship between multiplication and division.*

Name \_\_\_\_\_

1. Break apart the array to show  $8 \times 6 = (4 \times 6) + (4 \times 6)$ .



2. Nadia has 4 sheets of stickers. There are 8 stickers on each sheet. She wrote this number sentence to represent the total number of stickers.

$$4 \times 8 = 32$$

What is a related number sentence that also represents the total number of stickers she has?

(A)  $8 + 4 = \square$   
 (B)  $4 + 4 + 4 + 4 = \square$   
 (C)  $8 \times 8 = \square$   
  $8 \times 4 = \square$

3. Make true equations. Select a number to complete the equation.

0	1	7
---	---	---

$7 \div 7 = \mathbf{1}$       $7 \div 1 = \mathbf{7}$       $0 \div 7 = \mathbf{0}$

GO ON

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9 Practice Test

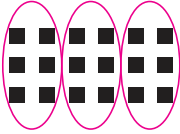
Practice Test

Name \_\_\_\_\_

4. Select the number sentences that show the Commutative Property of Multiplication. Mark all that apply.

$3 \times 2 = 2 \times 3$   
  $4 \times 9 = 4 \times 9$   
  $5 \times 0 = 0$   
  $6 \times 1 = 1 \times 6$   
  $7 \times 2 = 14 \times 1$

5. Circle groups to show  $3 \times (2 \times 3)$ .



6. Which number sentences have the same value as  $7 \times 5$ ? Mark all that apply.

(A)  $7 + (3 + 2) = \square$   
  $7 \times (3 + 2) = \square$   
  $(5 \times 4) + (5 \times 3) = \square$   
  $(7 \times 2) + (7 \times 5) = \square$

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10 Practice Test



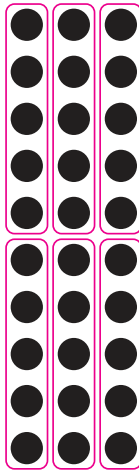
Practice Test

3.OA.B.6  
Understand properties of multiplication and the relationship between multiplication and division.

Name \_\_\_\_\_

1. Philip has 30 pennies that he exchanges for nickels. He exchanges 5 pennies for each nickel. How many nickels does Philip get?

Ring equal groups to model the problem.



6 nickels

2. There are 56 apples packed in 7 baskets with the same number of apples in each basket. How many apples are in each basket? Explain how you found your answer.

8 apples; Possible explanation: I divided 56 by 7 to find how many apples are in each basket.

3. There are 35 prizes in 5 equal rows. How many prizes are in each row?

Complete each equation to represent the problem.

$5 \times 7 = 35$       $35 \div 5 = 7$

7 prizes



Practice Test

Name \_\_\_\_\_

4. Use the tiles to write the numbers that complete the number puzzle.



×	9	3	2
6	54	18	12
7	63	21	14
8	72	24	16

Explain how you found the number in the circle.

Possible explanation: I had to first find the unknown factor in the multiplication column for row 2. I divided 63 by 9, which gives 7. Then I multiplied  $7 \times 2 = 14$  to find the number in the circle.

5. Circle numbers to complete the related facts.

7	7	8	=	8
9	$\times 8 = 72$	72	$\div$	9
64				64
80				

6. Penn has 18 eggs to use in some recipes. Select a way that he could divide the eggs equally among some recipes. Mark all that apply.

- 6 eggs in each of 3 recipes
- 4 eggs in each of 4 recipes
- 5 eggs in each of 3 recipes
- 9 eggs in each of 2 recipes
- 2 eggs in each of 9 recipes
- 3 eggs in each of 6 recipes



Name \_\_\_\_\_

**Practice Test**  
3.OA.C.7  
*Multiply and divide within 100.*

**Practice Test**

1. Bella made \$21 selling bracelets. She wants to know how many bracelets she sold. Bella used this number line.

Write the division equation that the number line represents.

$21 \div 3 = 7$

2. Etta buys some ribbon and cuts it into 7 pieces that are the same length. Each piece is 9 inches long. How long was the ribbon that Etta bought?

\_\_\_\_\_ inches

3. Complete the chart to show the quotients.

÷	27	36	54	45
9	3	4	6	5

4. Use the numbers to write related multiplication and division facts.

9

45

5

$9 \times 5 = 45; 45 \div 5 = 9; 5 \times 9 = 45; 45 \div 9 = 5$

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13

Practice Test

Name \_\_\_\_\_

**Practice Test**

**Practice Test**

5. Each picnic table seats 6 people. How many picnic tables are needed to seat 24 people? Explain the strategy you used to solve the problem.

**4 picnic tables; Possible explanation: I used the related multiplication fact  $6 \times 4 = 24$ .**

6. Circle the symbol that makes the multiplication sentence true.

$9 \times 6$

$>$

$<$

$=$

$3 \times (3 \times 9)$

7. Select the equations that represent the array. Mark all that apply.

$3 \times 5 = \square$

$5 \times \square = 15$

$2 \times \square = 12$

$12 \div 3 = \square$

$\square \div 3 = 5$

$15 \div 5 = \square$

8. Write related facts for the array. Explain why there are not more related facts.

**$6 \times 6 = 36; 36 \div 6 = 6$ ; Possible explanation: there are only two equations because both factors are the same.**

**STOP**

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14

Practice Test

Practice Test

3.OA.D.8  
Solve problems involving the four operations, and identify and explain patterns in arithmetic.

Name \_\_\_\_\_

1. Seth collected 24 toy cars. Then he gave away 3 toy cars to each of his 5 friends. How many toy cars does Seth have left? Explain how you solved the problem.

**9; Possible explanation: First, I multiplied  $3 \times 5 = 15$  to find the number of cars Seth gave away. Then I subtracted 15 from 24 and got 9, so there are 9 toy cars left.**

2. Mrs. Garcia puts 57 cans on a shelf. She puts an equal number of cans in each of 9 rows and puts 3 cans in the last row. How many cans does she put in each of the 9 equal rows?

Choose the equation that can be used to solve the problem.

$$\begin{array}{l} (3 \times c) + 9 = 57 \\ (9 \times c) + 3 = 57 \\ (57 \div 9) + 3 = c \end{array}$$

I can use the equation

Solve the problem.

**Check students' work.**

6 \_\_\_\_\_ cans



Practice Test

Name \_\_\_\_\_

3. Bella is planning to write in a journal. Some pages will have 1 journal entry on them, and other pages will have 2 journal entries on them. If Bella wants to make 10 entries, how many different ways can she write them in her journal?

**4 different ways;  $(2 \times 4) + (1 \times 2) = 10$ ;  $(2 \times 3) + (1 \times 4) = 10$ ;  $(2 \times 2) + (1 \times 6) = 10$ ;  $(2 \times 1) + (1 \times 8) = 10$**

4. Brian is going camping in 2 weeks and 2 days. Which equation can be used to find the number of days until Brian goes camping?

- A  $2 + 7 + 2 = c$ ;  $c = 11$  days  
 B  $2 \times 7 - 2 = c$ ;  $c = 12$  days  
 C  $2 \times 5 + 2 = c$ ;  $c = 12$  days  
 D  $2 \times 7 + 2 = c$ ;  $c = 16$  days

5. Eleni bought 3 packs of crayons. She then found 3 crayons in her desk. Eleni now has 24 crayons. How many crayons were in each pack she bought? Explain how you solved the problem.

**Possible explanation: First, I subtracted  $24 - 3 = 21$ . Then I divided 21 by 3 and got 7, so there were 7 crayons in each pack.**





Name \_\_\_\_\_

**Practice Test**  
3.OA.D.9  
*Solve problems involving the four operations, and identify and explain patterns in arithmetic.*

**Practice Test**

1. Tim says the rule for the pattern shown in the table is "Add 3." Is his rule correct? Explain how you know.

Packages	1	2	3	4	5
Markers	4	8	12	16	20

**No, Tim's rule is not correct. Possible explanation: it works for the first pair of numbers  $1 + 3 = 4$ , but it doesn't work for any of the other pairs. The rule should be "Multiply by 4."**

2. Select the number sentences that show the Commutative Property of Addition. Mark all that apply.

(A)  $14 + 8 = 22$

(B)  $8 + 14 = 14 + 8$

(C)  $8 + (13 + 1) = (8 + 13) + 1$

(D)  $5 + 9 + 8 = 9 + 5 + 8$

3. Heather's puppy weighs 23 pounds. He has been gaining 3 pounds every month as he grows. If this pattern continues, how much will the puppy weigh 5 months from now?

**38 pounds**

4. Helene selected an odd number to be multiplied by the factors in this table. Write *even* or *odd* to describe each product.

$\times$	1	2	3	4	5
odd number	odd	even	odd	even	odd

**GO ON**

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17

Practice Test

Name \_\_\_\_\_

**Practice Test**

**Practice Test**

5. Chloe bought 4 movie tickets. Each ticket cost \$6. What was the total cost of the movie tickets?

\$ **24**

6. Complete the table. Amir said a rule for the pattern shown in this table is "Multiply by 4." Is he correct? Explain how you know your answer is reasonable.

Cans	2	3	4	5	6
Peaches	8	12	16	20	24

**Yes, he is correct.  $2 \times 4 = 8$ ,  $3 \times 4 = 12$ ,  $4 \times 4 = 16$ ,  $5 \times 4 = 20$ , and  $6 \times 4 = 24$ . All the pairs of numbers follow the pattern, so the answer is reasonable.**

7. Lisa completed the table to describe the product of a mystery one-digit number and each factor in the table.

$\times$	1	2	3	4	5
?	even	even	even	even	even

**Part A**  
Give all of the possible numbers that could be Lisa's mystery one-digit number.

**2, 4, 6, 8**

**Part B**  
Explain how you know that you have selected all of the correct possibilities.

**Possible explanation: Because the products are all even, the mystery number must also be an even number. I have selected all of the even one-digit numbers.**

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18

Practice Test

Practice Test

3.NBT.A.1  
Use place value understanding and properties of operations to perform multi-digit arithmetic.

Name \_\_\_\_\_

1. There are 486 books in the classroom library. Complete the chart to show 486 rounded to the nearest 10.

Hundreds	Tens	Ones
4	9	0

2. Write each number sentence in the box below the better estimate of the sum.

$393 + 225 =$    $481 + 215 =$

$352 + 328 =$    $309 + 335 =$

600	700
$309 + 335 =$ <input type="checkbox"/>	$481 + 215 =$ <input type="checkbox"/>
$393 + 225 =$ <input type="checkbox"/>	$352 + 328 =$ <input type="checkbox"/>

3. Select the numbers that round to 300 when rounded to the nearest hundred. Mark all that apply.

- (A) 238  
 250  
 283  
 342  
 359

4. A total of 907 people went to a fishing tournament. Of these people, 626 arrived before noon. Alina estimates that fewer than 300 people arrived in the afternoon. How did she estimate? Explain.

**Possible explanation:** She rounded to the nearest hundred.

**First, she rounded 907 to 900 and rounded 626 to 600;**

**then, she subtracted,  $900 - 600 = 300$ .**



Practice Test

Name \_\_\_\_\_

5. Select the numbers that round to 100. Select all that apply.

(A) 38  109

(B) 162  83

6. Alex and Erika collect shells. The tables show the kinds of shells they collected.

Alex's Shells		Erika's Shells	
Shell	Number of Shells	Shell	Number of Shells
Scallop	36	Scallop	82
Jingle	95	Clam	108
Clam	115	Whelk	28

Part A

Who collected more shells? About how many more did she collect? Explain how you solved the problem.

**Alex; Possible explanation:** Estimate the number of shells Alex has (about 260) and Erika has (about 220). Alex has about 40 more.

Part B

Alex and Erika have the greatest number of what kind of shell? How many shells of that kind do they have in all? Show your work.

**clam shells; 223 shells**



Name \_\_\_\_\_

**Practice Test**

**3.NBT.A.2**  
*Use place value understanding and properties of operations to perform multi-digit arithmetic.*

Practice Test

1. Daniel has 402 pieces in a building set. He uses 186 pieces to build a house. How many pieces does he have left? Show your work.

216 pieces

Use the table for 2–4.

Susie's Sweater Shop	
Month	Number of Sweaters Sold
January	402
February	298
March	171

2. The table shows the number of sweaters sold online in three months. How many sweaters were sold in January and February?

**700** sweaters

3. How many more sweaters were sold in January than in March?

**231** sweaters

4. How many more sweaters were sold in February and March than in January?

**67** sweaters

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**21**

Practice Test

**GO ON**

Name \_\_\_\_\_

**Practice Test**

Practice Test

5. Janna buys 2 bags of dog food for her dogs. One bag weighs 37 pounds. The other bag weighs 15 pounds. How many pounds do both bags weigh? Explain how you solved the problem.

52 pounds; Possible explanation: Start with 37 and count on 3 to 40. Then add 15 as 1 ten 5 ones. Remember to subtract the 3 you counted on to start, 5 - 3 = 2, so 52.

6. Choose the property that makes the statement true.

Identity

The

Commutative

Property of Addition states that

Associative

you can group addends in different ways and get the same sum.

7. Alexandra has 78 e-mails in her inbox. She deletes 47 e-mails. How many e-mails are left in her inbox? Draw jumps and label the number line to show your thinking.

47      57      67      77 78

+10      +10      +1

\_\_\_\_\_ e-mails      **31**

8. Luke solves this problem. He says the difference is 214. Explain the mistake Luke made. What is the correct difference?

$352 - 148 =$  \_\_\_\_\_

Possible explanation: When Luke combined the tens and hundreds to subtract he should have combined the tens and ones. He needed to regroup 1 ten as 10 ones to subtract 48 from 52. Then he would have 0 tens 4 ones left. The difference is 204.

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**22**

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**STOP**

**Practice Test**

**3.NBT.A.3**  
Use place value understanding and properties of operations to perform multi-digit arithmetic.

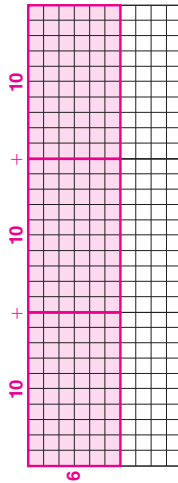
Name \_\_\_\_\_

1. Select the equations that show the Distributive Property. Mark all that apply.

- $8 \times 20 = 8 \times (10 + 10)$
- $5 \times 60 = 5 \times (20 + 40)$
- $30 \times 6 = 6 \times 30$
- $9 \times (4 + 3) = 9 \times 7$

2. The bookstore has 6 shelves of books about animals. There are 30 books on each shelf. How many books about animals does the bookstore have?

Make a diagram to show how you can use the Distributive Property to find the number of books about animals in the bookstore.



$$6 \times (10 + 10) = (6 \times 10) + (6 \times 10) = 60 + 60 + 60 = 180$$

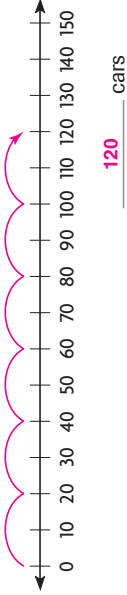
180 animal books



**Practice Test**

Name \_\_\_\_\_

3. Each train can carry 20 cars. Use the number line to find how many cars 6 trains can carry.



4. A store has 30 boxes of melons. Each box holds 4 bags. Each bag holds 2 melons. What is the total number of melons in the store?

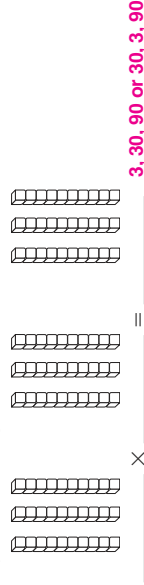
240 melons

5. A printer prints newsletters for many groups every month. Which group uses the greatest number of pieces of paper?

Group	Number of pieces of paper in newsletter	Number of copies of newsletter printed
Garden Ladies	5	70
Book Lovers Club	6	80
Model Train Fans	7	60
Travel Club	8	50

Book Lovers Club

6. Samantha made this multiplication model. Complete the equation that represents the model.



Practice Test  
**3.NF.A.1**  
*Develop understanding of fractions as numbers.*

GO ON

---

Name \_\_\_\_\_

1. What fraction names the shaded part?  
Explain how you know how to write the fraction.

**1: Possible explanation: There are 3 equal parts and 1 part is shaded, so I write 1 on the top and 3 on the bottom.**

2. Select a numerator and a denominator for the fraction that names the shaded part of the shape.

Numerator	Denominator
<input type="radio"/> 2	<input type="radio"/> 3
<input type="radio"/> 3	<input type="radio"/> 5
<input checked="" type="radio"/> 5	<input type="radio"/> 6
<input type="radio"/> 6	<input checked="" type="radio"/> 8

3. Omar shaded a model to show the part of the lawn that he finished mowing. What fraction names the shaded part? Explain how you know how to write the fraction.

**1: Possible explanation: There are 8 equal parts and 1 part is shaded, so I write 1 on the top and 8 on the bottom.**

Practice Test

STOP

---

Name \_\_\_\_\_

4. The model shows one whole. What fraction of the model is NOT shaded?

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

5. Gary paints some shapes.

Select one number from each column to show a fraction greater than 1 that names the parts Gary painted.

Numerator	Denominator
<input type="radio"/> 3	<input type="radio"/> 3
<input type="radio"/> 4	<input type="radio"/> 4
<input type="radio"/> 8	<input checked="" type="radio"/> 8
<input checked="" type="radio"/> 24	<input type="radio"/> 24

6. Angelo rode his bike around a bike trail that was  $\frac{1}{4}$  of a mile long. He rode his bike around the trail 8 times. Angelo says he rode a total of  $\frac{8}{4}$  miles. Teresa says he is wrong and that he actually rode 2 miles. Who is correct? Use words and drawings to explain how you know.

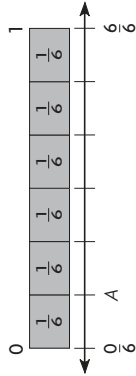
**Both are correct. Possible explanation: The distance around the trail is  $\frac{1}{4}$  mile, so if he rode around it 8 times, that is eight fourths or  $\frac{8}{4}$ . I drew a circle, divided it in fourths, and shaded  $\frac{1}{4}$ . I then drew another circle and shaded it the same to show  $\frac{8}{4}$ . My drawing shows that  $\frac{8}{4} = 2$ , so he rode 2 miles.**

**Practice Test**

**3.NF.A.2a, 3.NF.A.2b**  
Develop understanding of fractions as numbers.

Name \_\_\_\_\_

1. What fraction names point *A* on the number line?



$\frac{4}{6}$

2. Locate and draw point *F* on the number line to represent the fraction  $\frac{2}{4}$ .



3. Use a straightedge to divide the fraction bar into 6 equal parts. Then shade 4 parts.



What fraction does the shaded fraction bar represent?

$\frac{4}{6}$

Show the fraction as the sum of unit fractions.

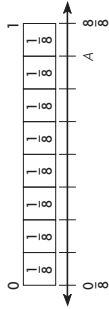
$$\frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} = \frac{4}{6}$$



**Practice Test**

Name \_\_\_\_\_

4. What fraction names point *A* on the number line?



$\frac{7}{8}$

5. Use a straightedge to divide the fraction bar into 4 equal parts. Then shade 3 parts.



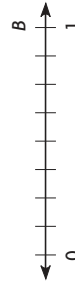
What fraction does the shaded fraction bar represent?

$\frac{3}{4}$

Show the fraction as the sum of unit fractions.

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

6. Maria drew a number line divided into 8 equal parts. What fraction names point *B* on the number line?



$\frac{8}{8}$

Name \_\_\_\_\_

**Practice Test**  
3.NF.A.3a  
*Develop understanding of fractions as numbers.*

**GO ON**

1. Mrs. Reed baked four pans of lasagna for a family party. Use the rectangles to represent the pans.

**Part A**

Draw lines to show how Mrs. Reed could cut one pan of lasagna into thirds, one into fourths, one into sixths, and one into eighths. **Possible lines are shown.**

**Part B**

At the end of the dinner, 2 of the pans had  $\frac{1}{3}$  of a lasagna left, and 2 of the pans had  $\frac{1}{2}$  of a lasagna left. Use the models to show the lasagna that might have been left over in each pan. Write two pairs of equivalent fractions to represent the models.  
**Possible answers:**  $\frac{1}{2} = \frac{2}{4}$ ,  $\frac{2}{4} = \frac{4}{8}$

2. Danielle drew a model to show equivalent fractions.

Use the model to complete the number sentence.

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

3. Sam went for a ride on a sailboat. The ride lasted  $\frac{3}{4}$  hour.

What fraction is equivalent to  $\frac{3}{4}$ ?

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

Name \_\_\_\_\_

**Practice Test**

**STOP**

4. Use the number line. Write the fraction that makes the statement true.

5. Mr. Worth opened new jars of 4 different colors of paint for an art project. All of the jars were the same size.

**Part A**

Draw lines to show how Mr. Worth could divide one jar of paint into halves, one into thirds, one into fourths, and one into sixths. **Possible lines are shown.**

**Part B**

Students in his class used an equivalent amount of paint from the jars divided into halves and fourths. They also used an equivalent amount of paint from the jars divided into thirds and sixths. Use the models to show the amount of paints used. Write two pairs of equivalent fractions to represent the models. **Possible shading is shown above.**

**Possible answers:**  $\frac{1}{2} = \frac{2}{4}$ ,  $\frac{1}{3} = \frac{2}{6}$

**Practice Test**

**3.NF.A.3b**  
Develop understanding of fractions as numbers.

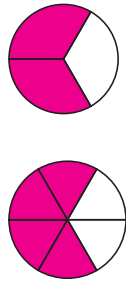
Name \_\_\_\_\_

1. Joe and Shelby are having lunch. Joe eats  $\frac{3}{4}$  of his sub sandwich. Shelby eats an equivalent amount of her sub sandwich. Use the top rectangle to show how much of his sandwich Joe ate. Use the bottom rectangle to show how much of her sandwich Shelby ate.



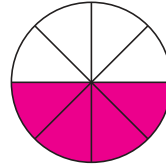
What fraction is equivalent to  $\frac{3}{4}$ ?  
 $\frac{6}{8} = \frac{3}{4}$

2. Tom rode his horse for  $\frac{4}{6}$  mile. Liz rode her horse for an equal distance. What is an equivalent fraction that describes how far Liz rode? Use the models to show your work.



$\frac{4}{6} = \frac{2}{3}$

3. Mr. Peters made a pizza. There is  $\frac{4}{8}$  of the pizza left over. Select the fractions that are equivalent to the part of the pizza that is left over. Mark all that apply.



- (A)  $\frac{5}{8}$  (B)  $\frac{3}{4}$  (C)  $\frac{2}{4}$  (D)  $\frac{1}{2}$

**GO ON**

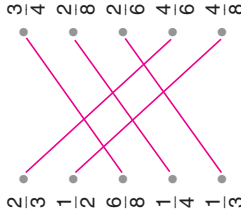
**Practice Test**

Name \_\_\_\_\_

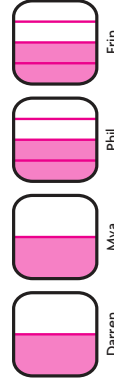
4. Select the fraction that would be included in an equivalence chain for  $\frac{1}{4}$ .

- (A)  $\frac{4}{4}$  (B)  $\frac{2}{8}$  (C)  $\frac{1}{6}$  (D)  $\frac{6}{2}$

5. Draw a line to match the fraction on the left to an equivalent fraction or number on the right.



6. Darren, Mya, Phil, and Erin are having breakfast. Darren and Mya each eat  $\frac{1}{2}$  of their omelets. Phil and Erin each eat  $\frac{2}{4}$  of their omelets. Use the models to show how much of his or her omelet each person ate.



What fraction is equivalent to  $\frac{1}{2}$ ?  
 $\frac{1}{2} = \frac{2}{4}$





**Practice Test**  
3.NF.A.3c Develop understanding of fractions as numbers.

Name \_\_\_\_\_

1. Use the fractions to label each point on the number line.

$\frac{1}{2}$       $\frac{6}{6}$       $\frac{12}{6}$   
 $\frac{9}{3}$       $\frac{12}{6}$       $\frac{7}{4}$

2. Tara ran 3 laps around her neighborhood for a total of 1 mile yesterday. Today she wants to run  $\frac{2}{3}$  of a mile. How many laps will she need to run around her neighborhood?

\_\_\_\_\_ laps

**GO ON**

Practice Test

**Practice Test**

Name \_\_\_\_\_

4. Each shape is 1 whole.

Select the numbers that name the shaded parts. Mark all that apply.

(A) 8     (B) 4     (C)  $\frac{8}{2}$      (D)  $\frac{8}{4}$      (E)  $\frac{2}{8}$

5. Lucy rode her bike around the block 4 times for a total of 1 mile yesterday. Today she wants to ride her bike  $\frac{3}{4}$  of a mile. How many times will she need to ride her bike around the block?

\_\_\_\_\_ times

6. Henry and Reiko both use 1 yard of ribbon to make bows. Write two different fractions to show that Henry and Reiko use the same amount of ribbon.

Sample answers given: Henry uses  $\frac{5}{5}$  yard. Reiko uses  $\frac{2}{2}$  yard.

**STOP**

Practice Test

**Practice Test**

Name \_\_\_\_\_

4. Each shape is 1 whole.

Select the numbers that name the shaded parts. Mark all that apply.

(A) 8     (B) 4     (C)  $\frac{8}{2}$      (D)  $\frac{8}{4}$      (E)  $\frac{2}{8}$

5. Lucy rode her bike around the block 4 times for a total of 1 mile yesterday. Today she wants to ride her bike  $\frac{3}{4}$  of a mile. How many times will she need to ride her bike around the block?

\_\_\_\_\_ times

6. Henry and Reiko both use 1 yard of ribbon to make bows. Write two different fractions to show that Henry and Reiko use the same amount of ribbon.

Sample answers given: Henry uses  $\frac{5}{5}$  yard. Reiko uses  $\frac{2}{2}$  yard.

**STOP**

Practice Test

**Practice Test**

Name \_\_\_\_\_

4. Each shape is 1 whole.

Select the numbers that name the shaded parts. Mark all that apply.

(A) 8     (B) 4     (C)  $\frac{8}{2}$      (D)  $\frac{8}{4}$      (E)  $\frac{2}{8}$

5. Lucy rode her bike around the block 4 times for a total of 1 mile yesterday. Today she wants to ride her bike  $\frac{3}{4}$  of a mile. How many times will she need to ride her bike around the block?

\_\_\_\_\_ times

6. Henry and Reiko both use 1 yard of ribbon to make bows. Write two different fractions to show that Henry and Reiko use the same amount of ribbon.

Sample answers given: Henry uses  $\frac{5}{5}$  yard. Reiko uses  $\frac{2}{2}$  yard.

**STOP**

Practice Test

**Practice Test**

**3.NF.A.3d**  
Develop understanding of fractions as numbers.

Name \_\_\_\_\_

1. Dan and Miguel are working on the same homework assignment. Dan has finished  $\frac{1}{4}$  of the assignment. Miguel has finished  $\frac{3}{4}$  of the assignment. Which statement is correct? Mark all that apply.

- A Miguel has completed the entire assignment.
- B Dan has not completed the entire assignment.
- C Miguel has finished more of the assignment than Dan.
- D Dan and Miguel have completed equal parts of the assignment.

2. Jenna painted  $\frac{1}{8}$  of one side of a fence. Mark painted  $\frac{1}{6}$  of the other side of the same fence. Use  $>$ ,  $=$ , or  $<$  to compare the parts that they painted.

$\frac{1}{8} < \frac{1}{6}$  or  $\frac{1}{6} > \frac{1}{8}$

3. Chun lives  $\frac{3}{8}$  mile from school. Gail lives  $\frac{5}{8}$  mile from school.

Use the fractions and symbols to show which distance is longer.

$\frac{3}{8}$       $\frac{5}{8}$       $<$       $>$

$\frac{5}{8} > \frac{3}{8}$ ; or  $\frac{3}{8} < \frac{5}{8}$

4. Pat has three pieces of fabric that measure  $\frac{3}{6}$ ,  $\frac{5}{6}$ , and  $\frac{2}{6}$  yard long. Write the lengths in order from least to greatest.

$\frac{2}{6}, \frac{3}{6}, \frac{5}{6}$



**Practice Test**

Name \_\_\_\_\_

5. Bill used  $\frac{1}{3}$  cup of raisins and  $\frac{2}{3}$  cup of banana chips to make a snack. Compare the fractions. Choose the symbol that makes the statement true.

$\frac{1}{3} = \frac{2}{3}$       $\frac{1}{3} < \frac{2}{3}$       $\frac{1}{3} > \frac{2}{3}$

6. Cora measures the heights of three plants. Draw a line to match each height to the word that describes its place in the order of heights.

$\frac{4}{6}$ foot	●	least
$\frac{4}{4}$ foot	●	between
$\frac{4}{8}$ foot	●	greatest

*(Note: Lines connect 4/6 to between, 4/4 to least, and 4/8 to greatest.)*

7. Mavis mixed  $\frac{3}{4}$  quart of apple juice with  $\frac{2}{6}$  quart of cranberry juice. Compare the fractions. Choose the symbol that makes the statement true.

$\frac{3}{4} = \frac{2}{6}$       $\frac{3}{4} > \frac{2}{6}$       $\frac{3}{4} < \frac{2}{6}$

8. Todd and Lisa are comparing fraction strips. Which statements are correct? Mark all that apply.

- $\frac{1}{4} < \frac{4}{4}$
- $\frac{5}{6} < \frac{4}{6}$
- $\frac{2}{3} > \frac{1}{3}$
- $\frac{5}{8} > \frac{4}{8}$




Name \_\_\_\_\_

**Practice Test**

**3.MD.A.1**  
*Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.*

**Practice Test**

1. Tran checked the time on his watch after he finished his daily run.



Select the time that Tran finished running. Mark all that apply.

14 minutes before nine     quarter to nine  
 eight forty-six     nine forty-six

2. Rita's class begins social studies at ten minutes before one in the afternoon. At what time does Rita's class begin social studies? Circle a time that makes the sentence true.

1:10 A.M.  
1:10 P.M.  
12:50 A.M.  
12:50 P.M.

Rita's class begins social studies at \_\_\_\_\_

3. Yul and Sarah's art class started at 11:25 A.M. The class lasted 30 minutes. Yul left when the class was done. Sarah stayed an extra 5 minutes to talk with the teacher and then left.

Write the time that each student left. Explain how you found each time.

**Yul: 11:55 A.M.; Sarah: noon or 12:00. I added the times.**

**11:25 + 0:30 = 11:55; 11:25 + 0:30 + 0:05 = 12:00**

**GO ON**

Name \_\_\_\_\_

**Practice Test**

**Practice Test**

4. Anthony's family went out to dinner. They left at 5:05 P.M. They returned home 47 minutes later.

What time did Anthony's family get home?

**5:52 P.M.**

5. Jason and Alyssa went to the park. Jason left the park at 1:35 P.M. Alyssa left the park 45 minutes later. What time did Alyssa leave the park?

**2:20 P.M.**

6. A chicken dish needs to bake in the oven for 35 minutes. The dish needs to cool for at least 8 minutes before serving. Scott puts the chicken dish in the oven at 5:14 P.M.

Can Scott serve the dish at 5:51 P.M.? Explain how you know.

**No; Possible explanation: Scott takes the dish out of the oven at 5:49 P.M. Then he needs to let it cool for 8 minutes or until 5:57 P.M. before he can serve it.**



Practice Test

3.MD.A.2  
Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.

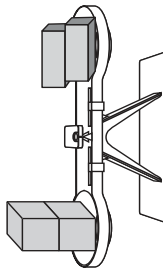
Name \_\_\_\_\_

1. A large bottle of water holds about 2 liters. Which other container will hold all of the water?
- A water glass
  - B ice cube tray
  - C large soup pot
  - D cereal bowl

2. Cara uses a balance scale to compare mass. Circle a symbol that makes the comparison true.



The mass of the blocks \_\_\_\_\_ the mass of the erasers.



3. Select the items that would be best measured in grams. Mark all that apply.
- A watermelon
  - B lettuce leaf
  - C grape
  - D onion

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39



Practice Test

Practice Test

Name \_\_\_\_\_

4. Lucy fills a bathroom sink with water. Is the amount of water *more than 1 liter*, *about 1 liter*, or *less than 1 liter*? Explain how you know.

**More than 1 liter; Possible explanation: A liter is only about the amount in a medium bottle of water. That amount would not fill a sink, so the full sink has more than 1 liter.**

5. Amy has 30 grams of flour. She puts 5 grams of flour in each pot of potato soup that she makes. How many pots of potato soup can Amy make?
- A 3 pots
  - B 5 pots
  - C 6 pots
  - D 15 pots

6. A deli makes its own salad dressing. Each bottle has 3 grams of spices. How many grams of spices are needed to make 8 bottles?
- \_\_\_\_\_ **24** \_\_\_\_\_ grams of spices

7. Select the objects with a mass greater than 1 kilogram. Mark all that apply.

- A bicycle
- B pen
- C eraser
- D chair

40

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Practice Test

Name \_\_\_\_\_

**Practice Test**  
3.MD.B.3  
*Represent and Interpret data.*

**Use the frequency table for 1–2.**

1. The Pet Shop keeps track of the number of fish it has for sale. The frequency table shows how many fish are in three tanks.

Fish in Tanks	
Tank	Number of Fish
Tank 1	16
Tank 2	9
Tank 3	12

**Part A**  
Use the data in the table to complete the picture graph.

**Fish in Tanks**

Tank 1	○ ○ ● ● ● ● ● ● ● ●
Tank 2	● ● ● ● ● ● ● ● ● ●
Tank 3	● ● ● ● ● ● ● ● ● ● ● ●

Key: Each ○ = 2 fish.

**Part B**  
How many pictures did you draw for Tank 2? Explain.

<sup>4</sup><sub>2</sub> Possible explanation: Because each circle represents 2 fish, I drew 4 circles to represent 8 fish and 1 half circle to represent 1 fish.

2. Each tank can hold up to 20 fish. How many more fish can the Pet Shop put in the 3 tanks?

(A) 60 fish      (C) 20 fish  
(B) 23 fish      (D) 33 fish

**GO ON**

Name \_\_\_\_\_

**Practice Test**

**Use the bar graph for 3–6.**

**Musical Instruments**

3. Three more students play piano than play which other instrument?  
flute

4. The same number of students play which two instruments?  
guitar and drums

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

(A) Ten more students play guitar than play flute.

(B) Nine students play piano.

(C) Six fewer students play flute and piano combined than play drums and guitar combined.

(D) Nine more students play piano and guitar combined than play drums.

6. There are more students who play the trumpet than play the flute, but fewer students than play the guitar. Explain how you would change the bar graph to show students who play the trumpet.

Possible explanation: I would add a fifth bar above flute. The bar will be longer than the bar for flute, which ends at 6, but shorter than the bar for guitar, which ends at 10.



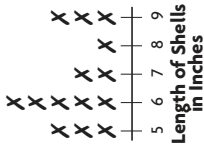
Practice Test

3.MD.B.4  
Represent and interpret data.

Name \_\_\_\_\_

Use the line plot for 1-2.

Robin collected shells during her vacation. She measured the length of each shell to the nearest inch and recorded the data in a line plot.



- How many shells were 6 inches long or longer?  
11 shells
- How many more shells did Robin collect that were 5 inches long than were 8 inches long?  
2 shells

- Use an inch ruler to measure.

Part A

What is the length of the leaf to the nearest fourth-inch?  
 $1\frac{1}{4}$  inches



Part B

Explain what happens if you line up the left side of the object with the 1 on the ruler.

Possible explanation: You will get the wrong answer. The leaf will measure 1 inch longer than it really is.



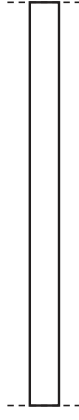
Practice Test

Name \_\_\_\_\_

- Ashley measures the shells she collects. She records the measurements in a chart.

Part A

Ashley found a razor clam shell as long as this strip. Use an inch ruler to measure. Record the measurement in the chart.



Number of Shells	Length in Inches
1	1
2	$2\frac{1}{2}$
3	$1\frac{1}{2}$
1	2
1	$3\frac{1}{2}$

- Complete the line plot to show the data in the chart. How many shells are longer than 2 inches? Tell how you know.  
 $3\frac{1}{2}$  inches

Part B

Complete the line plot to show the data in the chart. How many shells are longer than 2 inches? Tell how you know.



Length of Shells Measured to the Nearest Half Inch

Possible answer: 3 shells are longer than 2 inches. I

counted the number of Xs above  $2\frac{1}{2}$  and  $3\frac{1}{2}$ .

- Estimate the length of the fork in inches. Then measure it to the nearest  $\frac{1}{4}$  inch.



Estimate: 5 in. Actual:  $5\frac{1}{4}$  in.

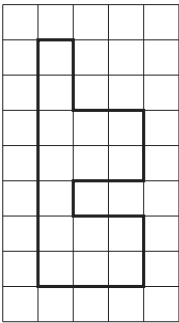


Practice Test

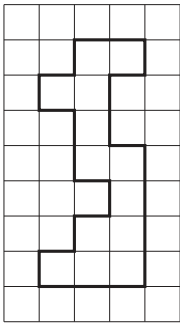
3.MD.C.5a, 3.MD.C.5b  
*geometric measurement: understand concepts of area and relate area to multiplication and division.*

Name \_\_\_\_\_

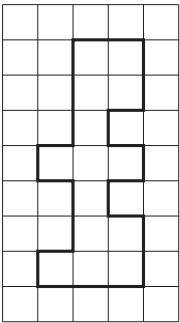
1. Draw a line from the figure to the area of the figure.



13 square units



14 square units

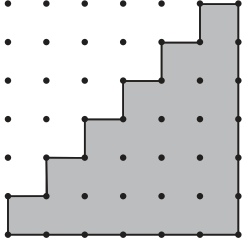


15 square units

2. What is the perimeter and area of this figure?  
Explain how you found the answer.

Perimeter 24 units  
Area 21 square units

**Possible explanation: For perimeter, I counted the unit edges around the figure:  $6 + 6 + 12 = 24$ . For area, I counted the unit squares inside the figure:  $1 + 2 + 3 + 4 + 5 + 6 = 21$ .**



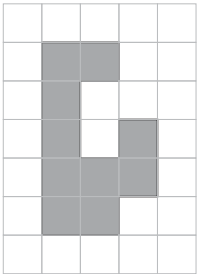
**GO ON**

Practice Test

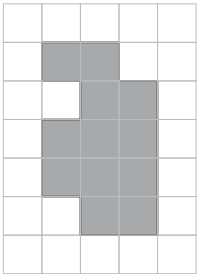
Practice Test

Name \_\_\_\_\_

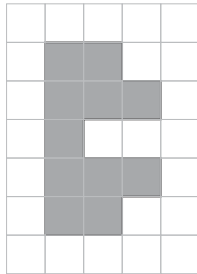
3. Draw a line from the figure to the area of the figure.



10 square units



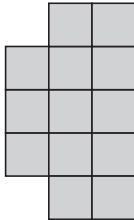
11 square units



12 square units

4. How many squares need to be added to this figure so that it has the same area as a square with a side length of 5 units?

12 squares



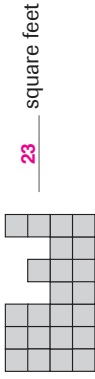
Practice Test



Practice Test

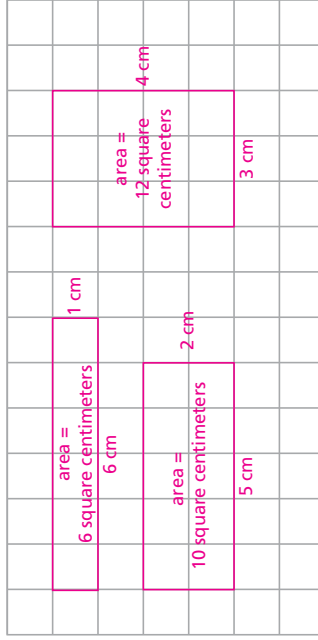
Name \_\_\_\_\_

3. What is the area of the figure shown? Each unit square is 1 square foot.



23 square feet

4. Dory designs a sticker with a perimeter of 14 centimeters. On the grid, draw all possible rectangles with a perimeter of 14 centimeters and sides whose lengths are whole centimeters. Label the lengths of two adjacent sides of each rectangle. Label each rectangle with its area.



Compare the areas of the rectangles. What do you notice about their shapes?

Possible answer: The sticker with the greatest area is closest to a square. The sticker with the least area is long and thin.

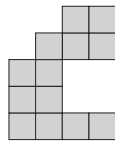


Practice Test

3.MD.C.6  
Geometric measurement: understand concepts of area and relate area to multiplication and division.

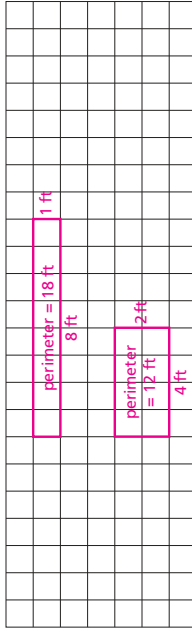
Name \_\_\_\_\_

1. What is the area of the figure shown? Each unit square is 1 square meter.



13 square meters

2. Steve makes a banner with an area of 8 square feet. On a grid, draw all possible rectangles with an area of 8 square feet and sides whose lengths are whole feet. Label the lengths of two adjacent sides of each rectangle. Label each rectangle with its perimeter.



Compare the perimeters of the banners. What do you notice about their shapes?

Possible answer: The banner with the greater perimeter is long and thin. The banner with the lesser perimeter has sides that are closer in length.



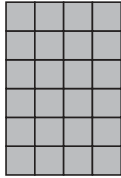


Name \_\_\_\_\_

**Practice Test**  
3.MD.C.7.a  
*geometric measurement; understand concepts of area and relate area to multiplication and division.*

**Practice Test**

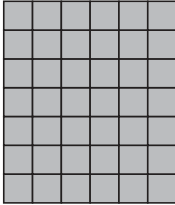
1. Brady is placing square tiles on the floor of the kitchen. Each unit square is 1 square foot.



Which equations can Brady use to find the area of the kitchen floor? Mark all that apply.

$4 \times 6 = 24$        $6 + 6 + 6 + 6 = 24$   
  $4 + 4 + 4 + 4 + 4 = 20$        $4 \times 5 = 20$   
  $4 + 6 + 4 + 6 = 20$        $6 \times 4 = 24$

2. Simon draws a sketch of the floor of his tree house on grid paper. Each unit square is 1 square foot. Write and solve a multiplication equation that can be used to find the area of the floor in square feet.



$6 \times 7 = 42$  or  $7 \times 6 = 42$

\_\_\_\_\_ square feet

**42** square feet

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**49**

**Practice Test**

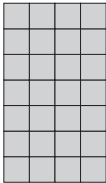
**GO ON**

Name \_\_\_\_\_

**Practice Test**

**Practice Test**

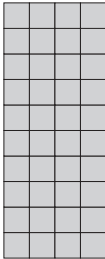
3. The drawing shows Seth's plan for a fort in his backyard. Each unit square is 1 square foot.



Which equations can Seth use to find the area of the fort? Mark all that apply.

$4 + 4 + 4 + 4 = 16$        $4 \times 4 = 16$   
  $7 + 4 + 7 + 4 = 22$        $7 \times 7 = 49$   
  $7 + 7 + 7 + 7 = 28$        $4 \times 7 = 28$

4. Keisha draws a sketch of her living room on grid paper. Each unit square is 1 square meter. Write and solve a multiplication equation that can be used to find the area of the living room in square meters.

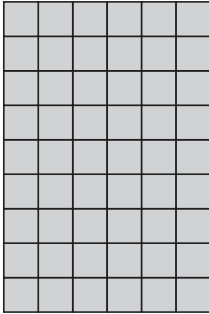


$4 \times 10 = 40$  or  $10 \times 4 = 40$

\_\_\_\_\_ square meters

**40** square meters

5. Colleen drew this rectangle. Select the equation that can be used to find the area of the rectangle. Mark all that apply.



$9 \times 6 = n$   
  $9 + 9 + 9 + 9 = n$   
  $9 + 6 = n$   
  $6 \times 9 = n$   
  $6 + 6 + 6 + 6 = n$

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**50**

**Practice Test**

**STOP**

**Practice Test**

**3.MD.C.7b**  
*geometric measurement: understand concepts of area and relate area to multiplication and division.*

Name \_\_\_\_\_

1. Elizabeth has a rectangular garden in her yard. The garden has a length of 8 feet and a width of 6 feet. What is the area of the garden?

\_\_\_\_\_ **48** square feet

2. Raul makes a sign for the school fair. It has a length of 9 inches and a width of 8 inches. What is the area of the sign?

Draw a rectangle to help solve the problem. Label your drawing.  
 Write an equation to solve the problem.



Area of the sign: \_\_\_\_\_ **72** square inches

3. Lydia is knitting a blanket. The blanket will be 5 feet long and 4 feet wide. What will the area of the blanket be?

- A 24 square feet
- B 20 square feet
- C 15 square feet
- D 9 square feet

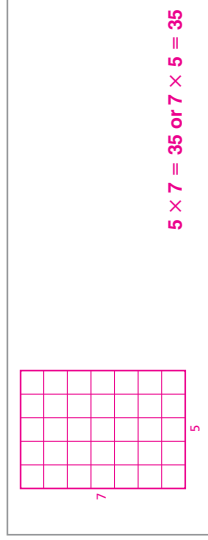


**Practice Test**

Name \_\_\_\_\_

4. Etta prints a photograph that is 7 inches long and 5 inches wide. What is the area of the photograph?

Draw a rectangle to help solve the problem. Label your drawing. Write an equation to solve the problem.



Area of the photograph: \_\_\_\_\_ **35** square inches

5. Find the pattern and complete the chart.

Total Area (in square feet)	50	60	70	80	<b>90</b>
Length (in feet)	10	10	<b>10</b>	10	<b>10</b>
Width (in feet)	5	6	7	<b>8</b>	<b>9</b>

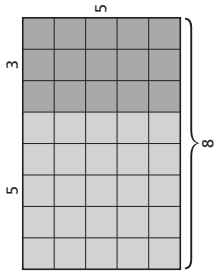
How can you use the chart to find the length and width of a figure with an area of 100 square feet?

**Possible answer: Extend the chart to 100 square feet and continue the pattern: length 10 feet, width 10 feet. The figure is a square.**



Name \_\_\_\_\_

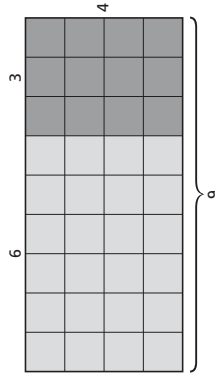
1. Sydney wants to find the area of the large rectangle by adding the areas of the two small rectangles.



Which expression could Sydney use to find the area of the large rectangle?

- A  $(8 \times 5) + (5 \times 5)$
- B  $25 + 20$
- C  $(5 \times 5) + (3 \times 5)$

2. Kylie wants to find the area of the large rectangle by adding the areas of the two small rectangles.



Select the expressions Kylie could use to find the area of the large rectangle. Mark all that apply.

- A  $24 + 12$
- B  $(4 \times 6) + (4 \times 3)$
- C  $(6 \times 4) + (9 \times 4)$

**Practice Test**

**3.MD.C.7c**

*geometric measurement; understand concepts of area and relate area to multiplication and division.*



Practice Test

**Practice Test**

Name \_\_\_\_\_

3. Liana plants a vegetable garden in two rectangular sections. She plants corn in a section that is 5 meters long and 6 meters wide. She plants squash in a section that is 3 meters long and 6 meters wide.

**Part A**

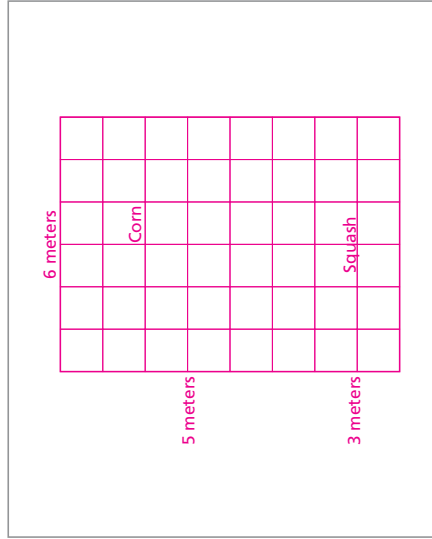
Describe one way to find the area of the garden. Then find the area.

**Possible answer:** I can find the area of each section of the garden and then add the areas together.  
 $(5 \times 6) + (3 \times 6) = 30 + 18 = 48$

Area: 48 square meters

**Part B**

Draw a picture of the garden to show your answer is correct.



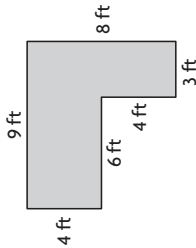
Name \_\_\_\_\_

**Practice Test**

**3.MD.C.7.d**  
Geometric measurement: understand concepts of area and relate area to multiplication and division.

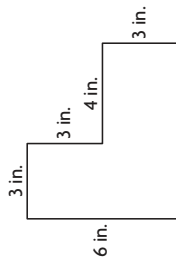
1. Mrs. Rios puts tape around the section of wall shown to indicate the area of the mural she will paint.

What is the area of the section she wants to paint? Show your work.

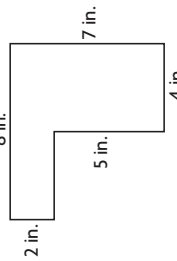


**48** square feet

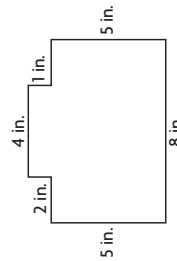
2. Draw a line from the figure to the area of the figure.



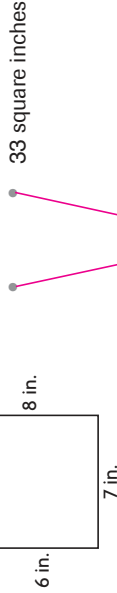
44 square inches



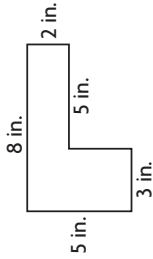
30 square inches



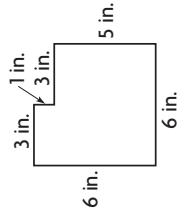
36 square inches



33 square inches

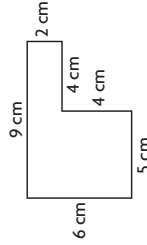


25 square inches



50 square inches

4. Kendra used markers to color the shape shown below. What is the area of the shape? Show your work.

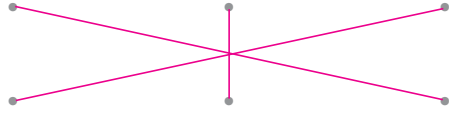


**38** square centimeters

Name \_\_\_\_\_

**Practice Test**

3. Draw a line from the figure to the area of the figure.



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55

**GO ON** 

**Practice Test**



**Practice Test**

56

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**Practice Test**  
3.MD.D.8  
*Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.*

Name \_\_\_\_\_

1. Kim wants to put trim around a picture she drew.  
How many centimeters of trim does Kim need for the perimeter of the picture?

24 centimeters

2. Yuji drew this figure on grid paper. What is the perimeter of the figure?

18 units

3. Shawn drew a rectangle that was 2 units wide and 6 units long. Draw a different rectangle that has the same perimeter but a different area.

**Drawings may vary. Accept all rectangles with a perimeter of 16 units and an area that is not 12 square units. Possible drawing is shownn.**

**GO ON**

Practice Test

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57

Practice Test

**Practice Test**

Name \_\_\_\_\_

4. Which figure has a perimeter of 20 units and an area of 16 square units?

(A)

(C)

(D)

5. Anthony wants to make two different rectangular flowerbeds, each with an area of 24 square feet. He will build a wooden frame around each flowerbed. The flowerbeds will have side lengths that are whole numbers.

**Part A**  
Each unit square on the grid below is 1 square foot. Draw two possible flowerbeds. Label each with a letter.

**Drawings will vary. Accept any 2 rectangles that have an area of 24 square units each. Possible drawings are shown.**

**Part B**  
Which of the flowerbeds will take more wood to frame? Explain how you know.

**Perimeters will vary. Possible explanation: Flowerbed A has a perimeter of 50 feet. Flowerbed B has a perimeter of 22 feet. So, Flowerbed A will take more wood to frame.**

Practice Test

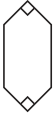
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58

Practice Test

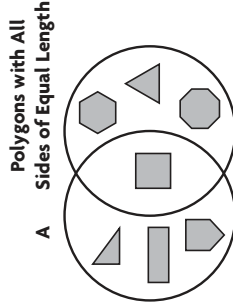
Name \_\_\_\_\_

4. Circle a number or word from each box to complete the sentence to describe this shape.



There are  right angles and  angles  .

5. Rhea used a Venn diagram to sort shapes. What label could she use for circle A?



Possible answer: Polygons with Right Angles

6. Ava drew a quadrilateral with 2 pairs of opposite sides that are parallel. The shape has at least 2 right angles. Draw a shape that Ava could have drawn.



Possible answer shown. Student should draw either a square or other rectangle.



3.G.A.1 Reason with shapes and their attributes.

Name \_\_\_\_\_

1. Which words describe this shape? Mark all that apply.



- polygon  
 open shape  
 pentagon  
 quadrilateral

2. Which words describe this shape? Mark all that apply.



- rectangle  rhombus  quadrilateral  square

3. Write the name of each triangle where it belongs in the table. Some triangles might belong in both parts of the table. Some triangles might not belong in either part.

Has 1 Right Angle	Has at Least 2 Sides of Equal Length
L	J
N	O
P	P
R	R



Name \_\_\_\_\_

**Practice Test**  
3.G.A.2 Reason with shapes and their attributes.

**GO ON**

1. This hexagon has been divided into triangles with equal areas. What part of the area of the hexagon is the area of each triangle?

(A)  $\frac{1}{2}$     (B)  $\frac{1}{5}$     (C)  $\frac{1}{6}$     (D)  $\frac{6}{6}$

2. Divide each shape into the number of equal parts shown. Then write the fraction that describes each part of the whole.

**Possible divisions of the shapes are shown. Check students' work.**

2 equal parts

$\frac{1}{2}$

4 equal parts

$\frac{1}{4}$

6 equal parts

$\frac{1}{6}$

3. Victor drew lines to divide a trapezoid into equal parts that represent  $\frac{1}{3}$  of the whole area. Draw lines to show how Victor divided the trapezoid. **Possible answer shown.**

Name \_\_\_\_\_

**Practice Test**

**STOP**

4. Divide each shape into the number of equal parts shown. Then write the fraction that describes each part of the whole. **Possible divisions of the shapes are shown. Check students' work.**

3 equal parts

$\frac{1}{3}$

6 equal parts

$\frac{1}{6}$

8 equal parts

$\frac{1}{8}$

5. Divide each shape into the number of equal parts shown. Then write the fraction that describes each part of the whole.

**Possible divisions of the shapes are shown. Check students' work.**

4 equal parts

$\frac{1}{4}$

6 equal parts

$\frac{1}{6}$

8 equal parts

$\frac{1}{8}$

6. Colette drew lines to divide a rectangle into equal parts that each represent  $\frac{1}{4}$  of the whole area. Her first line is shown. Draw to complete Colette's model.

**Possible answer shown.**