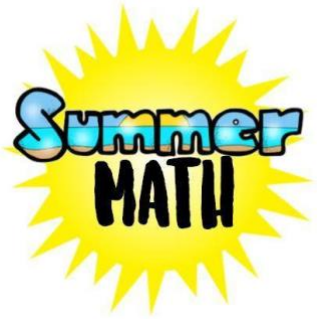
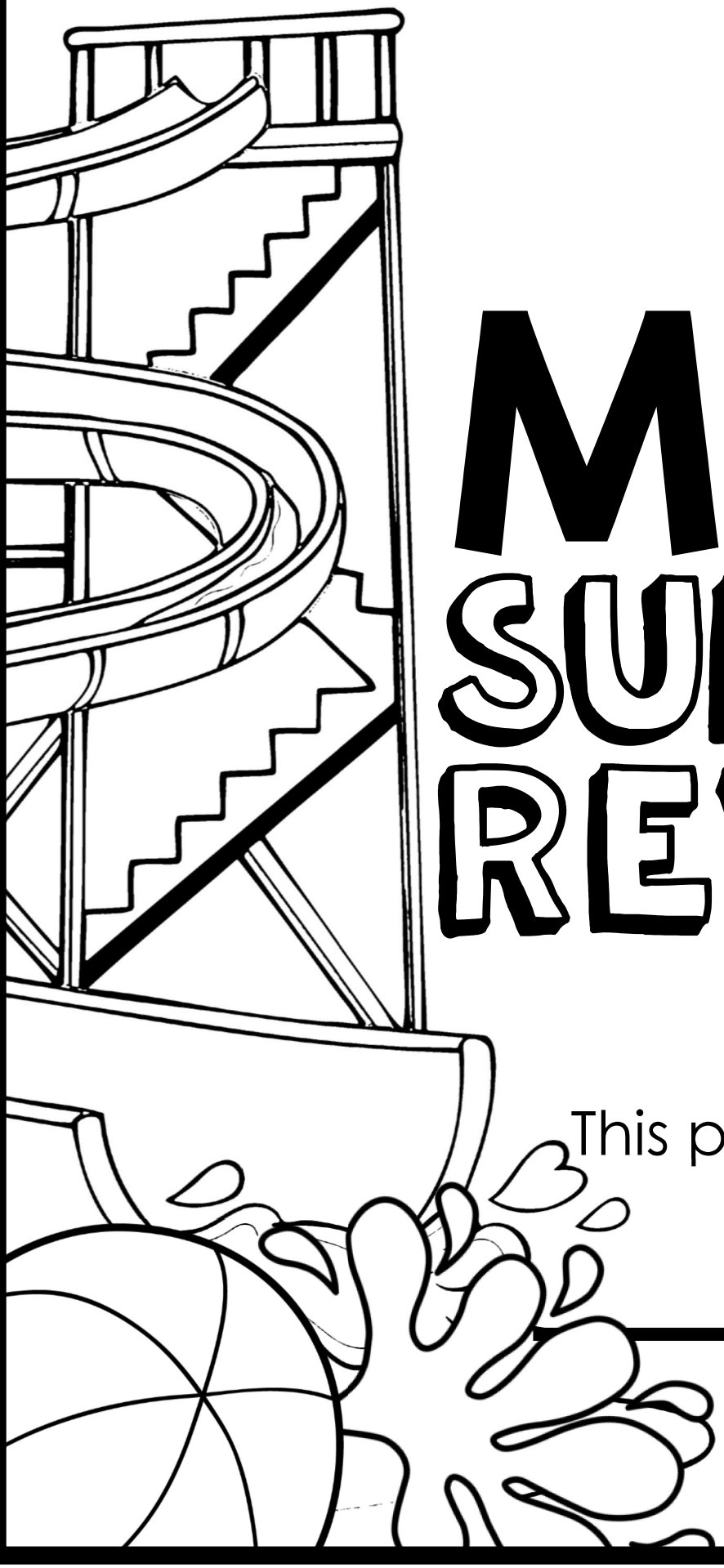


Dear upcoming 4th graders,

This math packet gives you an opportunity to practice all of the math skills you learned throughout your year in third grade. Completing this packet will help you prepare for fourth grade math by keeping your mathematics skills sharp while you enjoy your summer vacation! I hope you have a great summer and I can't wait to see you in September!

Miss Webster
Fourth grade math/science teacher

THIRD GRADE



MATH SUMMER REVIEW

This packet belongs to:

_____

Name _____ Date _____

Rounding Numbers

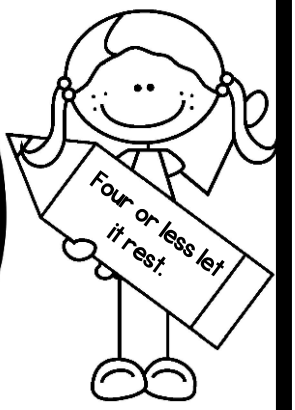
1. Round the following number to the nearest 10.
467

2. Round the following number to the nearest 10.
834

3. Round the following number to the nearest 100.
652

4. Round the following number to the nearest 10.
242

5. Round the following number to the nearest 100.
799



6. Place 360 on the number line below.

300 400

Is 360 closer to 300 or 400? _____

7. Place 880 on the number line below.

800 900

Is 880 closer to 800 or 900? _____

8. Place 694 on the number line below.

690 700

Is 694 closer to 690 or 700? _____

9. Place 258 on the number line below.

250 260

Is 258 closer to 250 or 260? _____

10. A three-digit number has the digits 2, 5, and 7. When rounded to the nearest hundred, it rounds to 800. What is the number? _____

Name _____ Date _____

Add & Subtract WHOLE NUMBERS

1. Find the sum. 72 + 29	2. Find the difference. 62 - 38	3. Find the missing number. 57 + ____ 82
4. Find the sum. 136 + 173	5. Find the difference. 347 - 262	6. Find the missing number. 423 + ____ 705
7. Jesse scored 486 points on a video game. April scored 182 points. How many more points did Jesse score than April?	8. Mrs. Miller drove 278 miles on Monday and 342 miles on Tuesday. Write and solve a number sentence to find how far she drove in all.	9. Lanie has 225 pennies, 105 nickels, and 25 dimes. How many coins does she have in all?

10. The table shows items purchased for a summer pool party. Which number sentence can be used to find how many more bottles of water than popsicles were purchased?

A. 36 – 12 = ____ C. 36 – 24 = ____

B. 36 + 12 = ____ D. 36 + 24 = ____

Item	Number Purchased
Bottled Water	36
Popsicles	24
Pool Toys	12

Name _____ Date _____

Word Problems
Using Multiplication & Division

1. Matt is preparing envelopes to be mailed. It takes him 2 minutes to prepare each envelope. How long would it take him to prepare 16 envelopes?

   A. 18 minutes
   B. 26 minutes
   C. 30 minutes
   D. 32 minutes

2. Eight hotdogs come in a pack. Katie used the following number sentence to find the number of hotdogs in 7 packages.

   8 + 8 + 8 + 8 + 8 + 8 + 8 = ___

   Finish the equation to show another way to find the number of hotdogs in 7 packs.

   ____ x ____ = ____

3. Scott has 56 pieces of candy to share evenly among 8 friends. How many pieces of candy will each friend get?

   A. 6 pieces of candy
   B. 7 pieces of candy
   C. 8 pieces of candy
   D. 9 pieces of candy

4. A ladybug has 6 legs. Which equation shows the number of legs on 5 ladybugs?

   A. 6 x 5 = 30
   B. 5 x 5 = 25
   C. 30 ÷ 6 = 5
   D. 30 ÷ 5 = 6

5. Michael bought 6 video games at the store for $42. If the price for each video game was the same, how much did he pay for each video game?

   A. $6
   B. $7
   C. $8
   D. $9

6. Tara places 4 bowls on a table. She puts 4 scoops of ice cream in each bowl. How many scoops of ice cream does Tara place in the bowls all together?

   A. 4 scoops
   B. 8 scoops
   C. 12 scoops
   D. 16 scoops

7. There are 36 children at a summer library program. The librarian forms 4 equal groups. Which number sentence can be used to find the number of children in each group?

   A. 36 + 4 = ___
   B. 36 – 4 = ___
   C. 36 ÷ 4 = ___
   D. 36 x 4 = ___

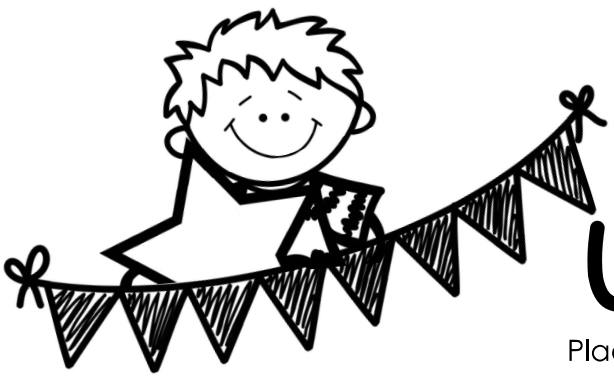
8. Twelve people want to see a movie. If each car can hold 4 people, which equation shows how many cars are needed to take all 12 people to the movie?

   A. 12 ÷ 4 = 3
   B. 12 + 4 = 16
   C. 12 - 4 = 8
   D. 12 x 4 = 48

9. Jan bought 3 cans of frozen lemonade. She can make 8 cups of lemonade with each can. How many cups of lemonade can Jan make in all?

   A. 11 cups
   B. 21 cups
   C. 24 cups
   D. 27 cups

Name _____ Date _____



Unknown Whole Numbers

Place a number in each blank to make the number sentence true.

1. 9 x ___ = 27

2. 36 ÷ ___ = 6

3. ___ x 4 = 40

4. ___ ÷ 3 = 7

5. 10 x ___ = 20

6. 5 x ___ = 45

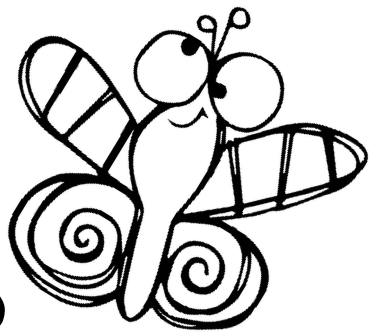
7. 42 ÷ ___ = 6

8. ___ ÷ 2 = 4

9. 5 x ___ = 30

Name _____ Date _____

PROPERTIES of Operations



COMMUTATIVE	ASSOCIATIVE	DISTRIBUTIVE	ZERO	IDENTITY
We can swap numbers and change the order, but the product stays the same.	It doesn't matter how we group the numbers. The product stays the same.	You can multiply a sum by multiplying each addend separately and then add the products.	When we multiply any number by zero the product is always zero.	Any time you multiply a number by one, the product is the original number.
$2 \times 3 = 3 \times 2$	$2 \times (3 \times 4) = (2 \times 3) \times 4$	$2 \times (3 + 4) = 2 \times 3 + 2 \times 4$	$6 \times 0 = 0$ (OR) $0 \times 6 = 0$	$9 \times 1 = 9$ (OR) $1 \times 9 = 9$

1. Which expression is equivalent to 3 x (6 + 9)?
   A. (3 + 6) + (3 + 9)
   B. (3 x 6) + (3 + 9)
   C. (3 + 6) + (3 x 9)
   D. (3 x 6) + (3 x 9)

2. Given the equation 2 x 8 x 5 = 80, which expression also equals 80?
   A. 2 + 8 + 5
   B. 8 x 5
   C. 5 x 2 x 8
   D. 8 x 5 x 3

3. Which number sentence is true?
   A. 4 x (5 x 2) = (4 x 5) x 2
   B. 4 x (5 x 2) = 4 x 5 + 2
   C. 4 x (5 x 2) = (4 + 5) x 2
   D. 4 x 5 = 4 x 2

4. Which number sentence is not equal?
   A. 8 ÷ 2 = 2 ÷ 8
   B. 8 x 2 = 2 x 8
   C. 8 x (2 x 4) = (8 x 2) x 4
   D. 8 x (2 + 4) = 8 x 2 + 8 x 4

5. Which number will make the number sentence true?

   4 x (2 x 6) = (4 x ____) x 6

6. Which number will make the number sentence true?

   6 x 7 = ____ x 6

7. The example 5 x 0 = 0, is an example of which property?
   A. Distributive Property
   B. Identity Property
   C. Associative Property
   D. Zero Property

8. The example 1 x 9 = 9, is an example of which property?
   A. Zero Property
   B. Associative Property
   C. Identity Property
   D. Distributive Property

Name _____ Date _____

MULTIPLY & Divide

1. 9 x 2 = _____	2. 7 x 3 = _____	3. 5 x 4 = _____	4. 8 x 7 = _____
5. 3 x 0 = _____	6. 9 x 5 = _____	7. 6 x 6 = _____	8. 4 x 3 = _____
9. 42 ÷ 6 = _____	10. 24 ÷ 4 = _____	11. 81 ÷ 9 = _____	12. 32 ÷ 8 = _____
13. 20 ÷ 2 = _____	14. 36 ÷ 9 = _____	15. 72 ÷ 8 = _____	16. 21 ÷ 3 = _____
17. Write a related fact for 4 x 4 = 16. ____ ÷ ____ = ____	18. Write a related fact for 5 x 3 = 15. ____ ÷ ____ = ____	19. Write a related fact for 27 ÷ 9 = 3. ____ x ____ = ____	20. Write a related fact for 40 ÷ 8 = 5 ____ x ____ = ____
21. Mr. Nix has 8 grandchildren. He wants to give each grandchild 3 books. How many total books does he need? Write an expression and solve.	22. Laci has 8 cookies. She and 3 friends share them equally. How many cookies did they each get? Write an expression and solve.	23. Erin's dance teacher wants to put 48 dancers into 6 groups. How many students will be in each group? Write an expression and solve.	24. Randy had guitar lessons 7 times each month for 9 months. What was the total number of guitar lessons Randy had in 9 months? Write an expression and solve.

Write the related facts (fact family) for the arrays.

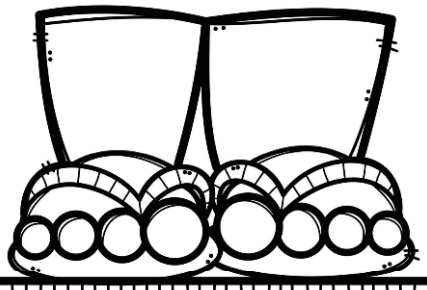
25. □□□□□ ___ x ___ = ___
□□□□□ ___ x ___ = ___
□□□□□ ___ ÷ ___ = ___
___ ÷ ___ = ___

26. □□□ ___ x ___ = ___
□□□ ___ x ___ = ___
□□□ ___ ÷ ___ = ___
___ ÷ ___ = ___

27. □□ ___ x ___ = ___
□□ ___ x ___ = ___
□□ ___ ÷ ___ = ___
□□ ___ ÷ ___ = ___

Name _____ Date _____

Two-step Word Problems



1. Callie had 13 new pens. She gave 2 pens to each of her 6 friends. How many pens did she have left?

A. 1 pen
B. 11 pens
C. 12 pens
D. 21 pens

2. Wes and Joey each have 7 baseball cards. Ben has 5 fewer cards than Wes and Joey combined. How many baseball cards does Ben have?

A. 2 baseball cards
B. 5 baseball cards
C. 9 baseball cards
D. 10 baseball cards

3. Kylie had a pack of 48 crayons. She lost 8 of the crayons at school and her sister broke 4 of them. How many crayons does Kylie have now?

A. 60 crayons
B. 52 crayons
C. 36 crayons
D. 12 crayons

4. Mark got $10, $20, $15, and $5 as birthday gifts. He wants to buy a game that costs $55. How much more money does he need?

A. $4
B. $5
C. $6
D. $8

5. Pete caught 4 fish. Robbie caught 3 times as many fish as Pete. Nick caught 27 fish. How many more fish does Nick have than Robbie?

A. 24 more fish
B. 15 more fish
C. 8 more fish
D. 7 more fish

6. Kat has 3 piles of rocks with 7 rocks in each pile. Her friend adds more rocks to the piles. Now, there are 32 rocks total. How many rocks did her friend bring?

A. 11 rocks
B. 12 rocks
C. 21 rocks
D. 22 rocks

7. A farmer fills 4 cartons with eggs. Each carton holds 6 eggs. After the farmer fills the cartons, he has 3 eggs left over. How many total eggs does the farmer have?

A. 27 eggs
B. 24 eggs
C. 21 eggs
D. 20 eggs

8. Taylor spent 90 minutes at the beach. She ate lunch for 27 minutes and played a game for 32 minutes. She spent the rest of the time swimming. About how long did Taylor spend swimming?

A. 18 min.
B. 30 min.
C. 49 min.
D. 59 min.

9. Andrea wants to save 900 Box Tops. She saved 135 in one month. She saved 83 the next month. About how many more Box Tops does Andrea need to save?

A. fewer than 300
B. between 300 and 600
C. between 600 and 800
D. more than 800

Operations & Algebraic Thinking 3.OA.9

Name _____ Date _____

FIND THE Pattern

1. If the pattern continued, what number would come next in the sequence?

   3, 7, 1 1, 15, ___

   What rule does the pattern follow?

   _____

2. What are the missing two numbers in this pattern?

   1, 2, 4, 8, ___, ___

   What rule does the pattern follow?

   _____

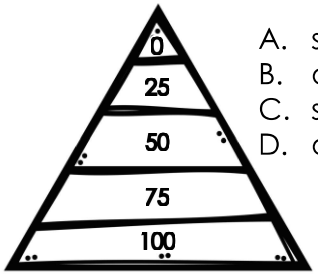
3. If the pattern continued, what number would come next in the sequence?

   9, 12, 15, 18, ___

   What rule does the pattern follow?

   _____

4. The numbers on the triangle form a pattern from the top to the bottom. What rule is followed to make the pattern shown?



   A. subtract 50
   B. add 50
   C. subtract 25
   D. add 25

5. Which shows the shirts arranged in a pattern counting by five?

6. Which statement is true about this y and z chart?

y	z
9	3
8	4
7	5
6	6
5	7

   A. $y \div 2 = z$
   B. $y \div 3 = z$
   C. $y + z = 12$
   D. $y - z = 6$

7. Which is true when any number is multiplied by 2?

   A. The answer will be even.
   B. The answer will be odd.
   C. The answer will end in 2.
   D. The answer will be a two-digit number.

8. Tori said that anytime an odd number is multiplied by any other number, the answer will always be an odd number. Which multiplication fact proves Tori is incorrect?

   A. 3 x 7
   B. 5 x 6
   C. 7 x 5
   D. 9 x 3

9. Larry found a pattern when he multiplied numbers by 8. Which pattern could Larry have found?

   A. all products are odd numbers
   B. all products end in 8
   C. all products are even numbers
   D. all products end in 0

10. Mrs. Brown's class is studying patterns. Four of her students made the statements below.

    Ricky said, "Adding two even numbers equals an even sum."
    Tara said, "Adding two even numbers equals an odd sum."
    Alex said, "Adding two odd numbers equals an odd sum."
    Lani said, "Adding two odd numbers equals an even sum."

    Which student is correct?

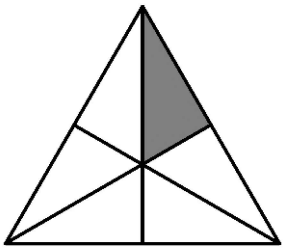
    A. Ricky is correct.
    B. Tara is correct.
    C. Alex is correct.
    D. Ricky & Lani are correct.

Number and Operations - Fractions 3.NF.1

Name _____ Date _____

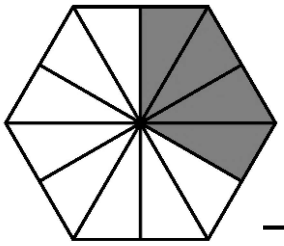
Fraction Models

1. What fraction of the shape is shaded?



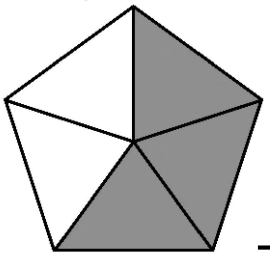
_____

2. What fraction of the shape is shaded?



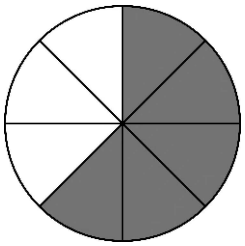
_____

3. What fraction of the shape is shaded?



_____

4. Amy's family had pizza for dinner. The shaded parts below show how much was eaten. Which fraction shows how much pizza was left?

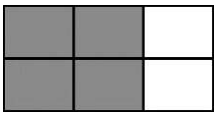


A. $\frac{3}{6}$ C. $\frac{5}{5}$

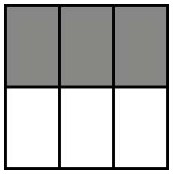
B. $\frac{3}{8}$ D. $\frac{5}{8}$

5. Which fraction model shows $\frac{2}{6}$ shaded?

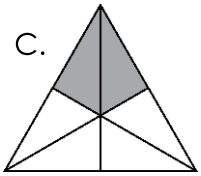
A.



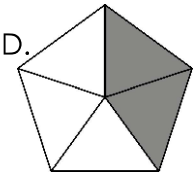
B.



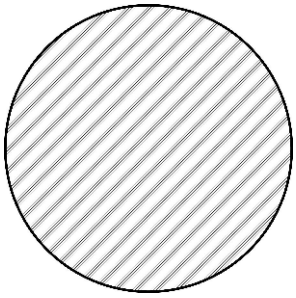
C.



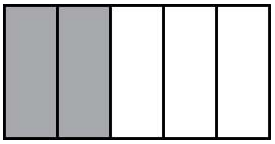
D.



6. The circle below shows one whole. Shade the circle to show $\frac{3}{4}$.



7. Wesley drew a model of a candy bar and shaded the amount he ate. What fraction of the candy bar did Wesley eat?

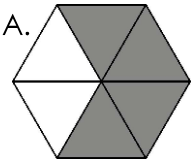


A. $\frac{5}{2}$ B. $\frac{3}{5}$ C. $\frac{2}{6}$ D. $\frac{2}{5}$

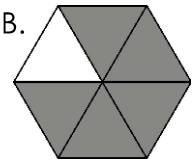
8. Kasey drew a hexagon and shaded it $\frac{5}{6}$.

Which shape could be hers?

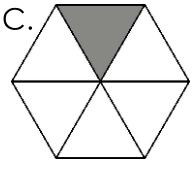
A.



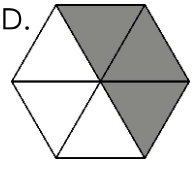
B.



C.

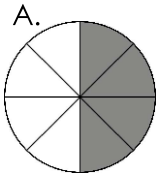


D.

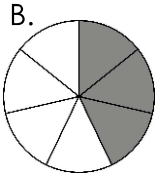


9. Mrs. Smith cut an apple into 8 equal slices. She gave 3 of the slices to her son and 2 slices to her daughter. Which fraction model shows how many slices Mrs. Smith has left.

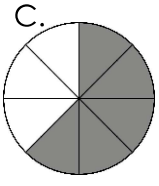
A.



B.



C.

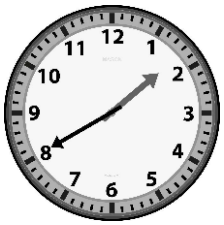


Measurement and Data 3.MD.1

Name _____ Date _____

Telling TIME

1. Julia went to the pool 60 minutes after the time shown on the clock. What time did Julia go to the pool?



A. 1:20
B. 1:40
C. 2:20
D. 2:40

2. Lily's birthday party last one hour and thirty minutes. The clock shows what time her birthday party ended. What time did Lily's birthday party start?

A. 4:00
B. 4:30
C. 3:00
D. 3:30

3. Which clock best represents the time shown on the digital clock?

2:50

A. 
C. 
B. 
D. 

4. Mrs. Smith started cooking 45 minutes before the time shown on the clock. What time was it when Mrs. Smith started to cook?

A. 4:30
B. 4:45
C. 5:30
D. 5:45

5. The time now is 3:20. Jake has to leave for baseball practice in 15 minutes. Which clock shows the time Jake will leave for baseball practice?

A. 
C. 
B. 
D. 

6. Molly leaves for her grandparents' house at the time shown on the clock. She gets back home 3 hours and 30 minutes later. What time did Molly get home?

A. 6:15
B. 6:45
C. 6:00
D. 5:30

7. Kyle leaves his house at 2:30 walk his dog. Taylor leaves her house 20 minutes earlier to walk her dog. What time did Taylor start walking her dog?

A. 1:20
B. 1:40
C. 2:10
D. 2:40

8. Kasey gets up at 6:15 a.m. She eats breakfast at 7:20 a.m. How long is it after Kasey gets up before she eats breakfast?

A. 55 minutes
B. 60 minutes
C. 65 minutes
D. 70 minutes

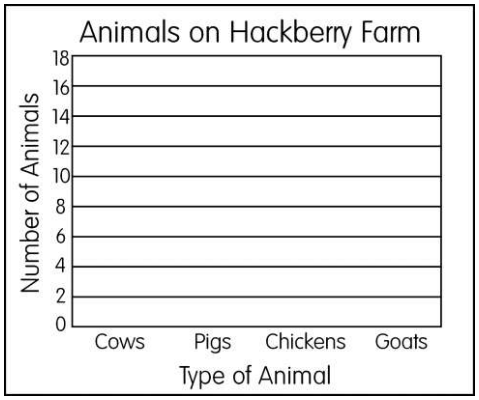
9. It took 18 minutes for Scott to walk to Mark's house. If he left at 7:48, what time did Scott get to Mark's house?

_____

Name _____ Date _____

Graphing Data

1. Mr. Hackberry counted the number of animals on his farm. He counted 14 cows, 9 pigs, 17 chickens, and 6 goats. Make a bar graph to show the number of animals on his farm.



2. How many more chickens are there than pigs?

A. 3 more C. 9 more

B. 8 more D. 11 more

3. How many animals did Mr. Hackberry have in all?

A. 46 animals

B. 45 animals

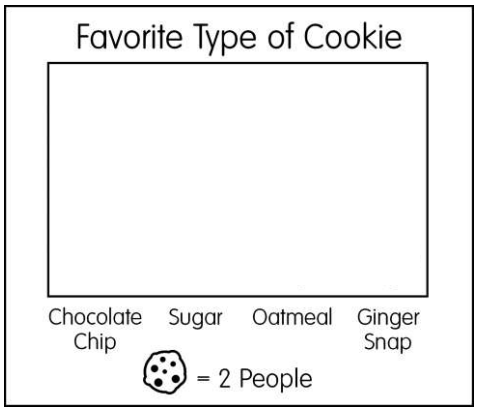
C. 40 animals

D. 31 animals

4. Jillan surveyed 16 of her friends about their favorite type of cookie. Her results are below.

Chocolate Chip	6
Sugar	3
Oatmeal	5
Ginger Snap	2

Draw a pictograph to show the number of people that liked each cookie.

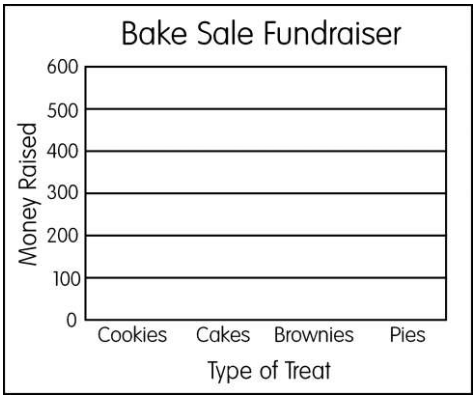


5. How many more people liked oatmeal than sugar?

A. 4 more C. 8 more

B. 3 more D. 2 more

6. The cheerleading team held a bake sale fundraiser. Each item cost $1. They sold 450 cookies, 200 cakes, 350 brownies, and 600 pies. Make a bar graph to show how much money they earned from each item sold.



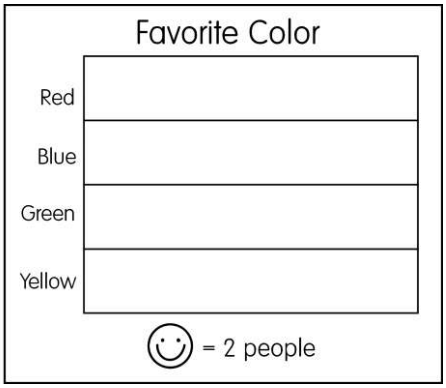
7. Based on the results, which item should they make more of to sell at their next bake sale fundraiser?

A. cookie C. brownies

B. pies D. cakes

8. What interval was used for this scale? _____

9. Survey friends and family members about their favorite color. Make a pictograph to show how many people liked each color. Based on your results create a question with answer choices about your graph. Be sure to circle the correct answer.



10. _____

_____

_____

_____

_____

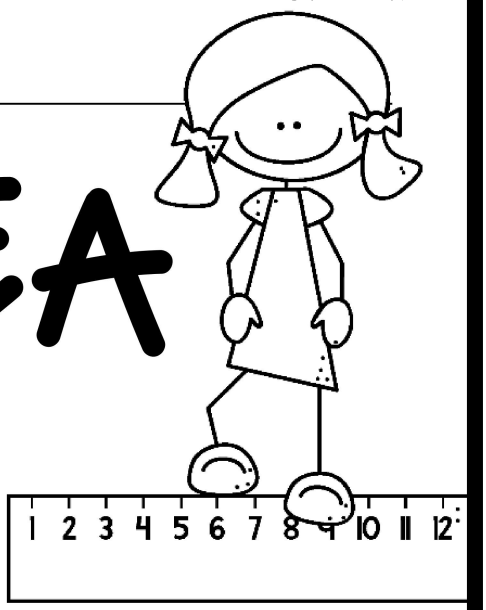
A. _____ C. _____

B. _____ D. _____

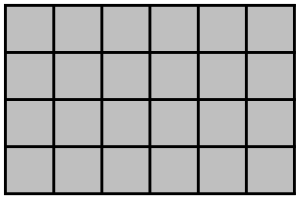
Measurement and Data 3.MD.7

Name _____ Date _____

FIND THE AREA

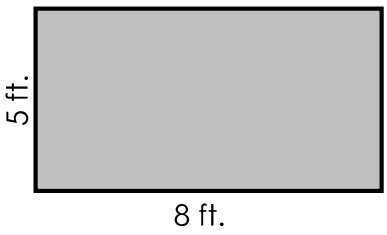


1. One way to find the area of this rectangle is to count each square. Which multiplication equation can be used to find the area of this rectangle?



A. 6 + 4
B. 6 x 4
C. 7 + 4
D. 7 x 4

2. The dimensions of the rectangle are shown in feet. What is the area of the rectangle?

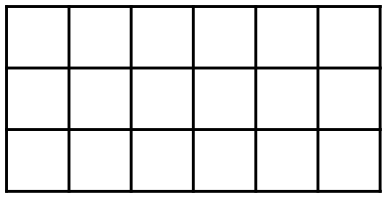


A. 3 square feet
B. 13 square feet
C. 26 square feet
D. 40 square feet

3. The area of a rectangular garden Tyler built is 72 feet. Which could be the length and width of the garden?

A. 8 feet x 7 feet
B. 8 feet x 9 feet
C. 8 feet x 8 feet
D. 7 feet x 10 feet

4. Ms. Ashley used square inch tiles to show a model of a window. Which equation set shows two ways to find the area of the window?



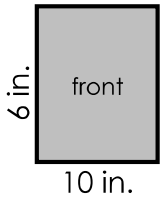
A. 3 + 3 + 3 + 3 + 3 + 3 = 6 x 3
B. 6 + 6 + 6 + 6 + 6 + 6 = 3 x 6
C. 3 x 3 x 3 x 3 x 3 x 3 = 6 x 3
D. 6 + 6 + 6 = 3 + 6

5. Jessica is using square pieces of paper to cover a rectangular bulletin board? The board is 20 feet long by 5 feet wide. Each piece of paper is 1 foot long and 1 foot wide. None of the pieces of paper will overlap. How many pieces of paper will Jessica need to cover the bulletin board? (Draw a picture to solve the problem)

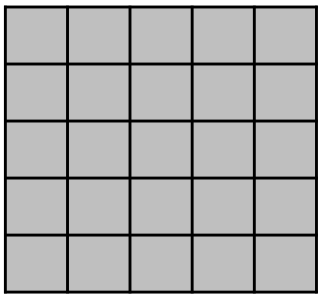
A. 25
B. 50
C. 100
D. 125

6. Sam covered the front and back of his math book with contact paper. The front of the book is the same size as the back. What is the total area of the front and back of Sam's math book?

A. 120 sq. in.
B. 60 sq. in.
C. 32 sq. in.
D. 20 sq. in.

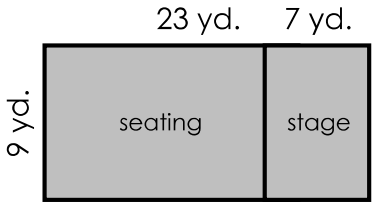


7. Which number sentence shows how to find the area of the square?



A. 5 + 5
B. 5 + 5 + 5 + 5 + 5
C. 5 x 5 x 5 x 5 x 5
D. 5 x 5

8. A diagram of a theater is shown below. The total area of theater floor is (23 x 9) + (7 x 9) square yards. Which expression is equivalent to the total area of the theater floor?



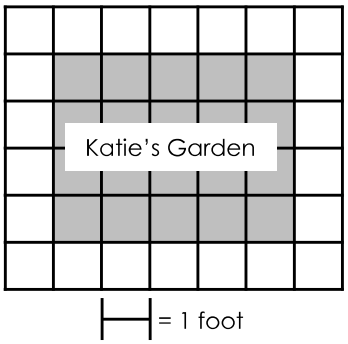
A. 9 x (23 + 7)
B. 9 x (23 x 7)
C. 9 + (23 + 7)
D. 9 + (23 x 7)

Measurement and Data 3.MD.8

Name _____ Date _____

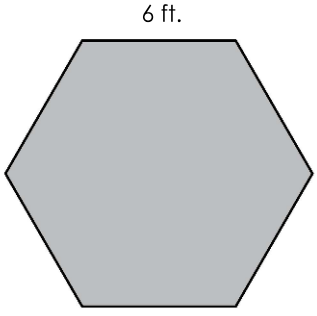
FIND THE PERIMETER

1. Katie wants to put fencing around the outside edge of her garden. To do this, she needs to know the perimeter. What is the perimeter of Katie's garden?



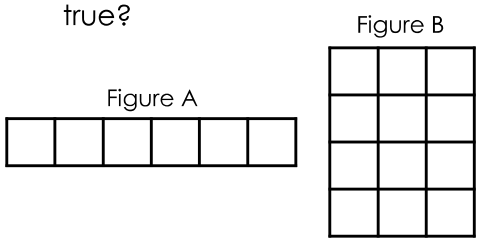
A. 10 feet
B. 18 feet
C. 20 feet
D. 24 feet

2. The picture below represents a patio that measures 6 ft. on each of its six sides. What is the perimeter of the patio?



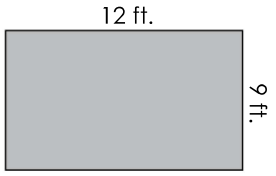
A. 6 feet
B. 12 feet
C. 36 feet
D. 42 feet

3. Ben compared the area and perimeter of the two figures below. Which statement is true?



A. The figures have the same area but different perimeters.
B. The figures have the same perimeter but different area.
C. The figures have the same perimeter and the same area.
D. The figures have different areas and different perimeters.

4. Mrs. Absher bought a rectangle rug for her living room. Which statement about the rug is true?

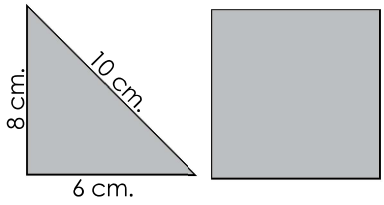


A. The perimeter is 108 feet.
B. The area is 42 feet.
C. The area and perimeter are the same.
D. The perimeter is 42 feet and the area is 108 feet.

5. Amy wants to sew a fringe border around her square shaped blanket. One side of her blanket measures 96 inches. How many inches of fringe border does she need?

_____

6. The square has the same perimeter as the triangle. What is the length of each side of the square?



A. 6 centimeters
B. 8 centimeters
C. 12 centimeters
D. 24 centimeters

7. Mattie is making a blanket for her mother that measures 54 inches by 68 inches. What is the perimeter of the blanket?

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