Name _____

Topic 13
Assessment

MP3
3.NF.A

1. Marilyn and her brothers are painting a fence. Marilyn paints $\frac{1}{6}$ of the fence. Lee and Carl each paint $\frac{2}{6}$ of the fence. How much of the fence do they paint all together?

2. Alex can compare $\frac{5}{6}$ and $\frac{5}{8}$ without using fraction strips. He says that a whole divided into 6 equal parts will have larger parts than the same whole divided into 8 equal parts. Five larger parts must be more than 5 smaller parts, so $\frac{5}{6}$ is greater than $\frac{5}{8}$. Is Alex correct? Choose the best answer.

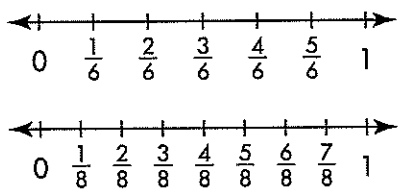
Ⓐ No, 6 is less than 8, so $\frac{5}{6}$ is less than $\frac{5}{8}$.

Ⓑ No, the fractions are equal.

Ⓒ No, you cannot compare $\frac{5}{6}$ and $\frac{5}{8}$.

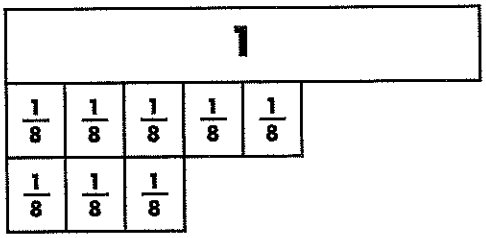
Ⓓ Yes, he is correct.

3. Aoki completed $\frac{3}{6}$ of a distance-running challenge. Faye completed $\frac{3}{8}$ of the same challenge. Who ran the farther distance?



4. There is $\frac{1}{3}$ of a puzzle in every box of cereal. Use a fraction to show the number of puzzles in 6 boxes of cereal.

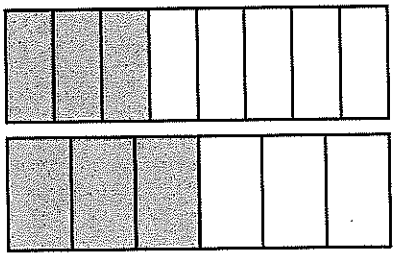
5. Addy walked $\frac{5}{8}$ of the distance from school to the library. Phillip walked $\frac{3}{8}$ of the same distance. Write the correct symbol to compare the fractions.



$\frac{5}{8}$ ◯ $\frac{3}{8}$

6. Alisha and Rose each have a bracelet containing the same number of beads. Of the beads in Alisha's bracelet, $\frac{5}{6}$ are red. In Rose's bracelet, $\frac{2}{6}$ of the beads are red. In which bracelet is the fraction of red beads closer to 0 than to 1?

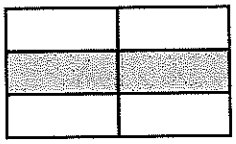
7. Karyna jogged $\frac{3}{8}$ of a mile. Hannah jogged $\frac{3}{6}$ of a mile.



Which comparisons are true? Choose all that apply.

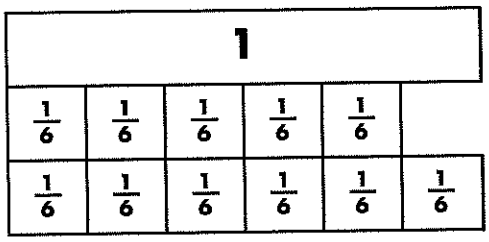
- ☐ $\frac{3}{8} > \frac{3}{6}$
- ☐ $\frac{3}{8} < \frac{3}{6}$
- ☐ $\frac{3}{8} = \frac{3}{6}$
- ☐ $\frac{3}{6} > \frac{3}{8}$
- ☐ $\frac{3}{6} < \frac{3}{8}$

8. Tami colored the fraction model below. Which fractions name the shaded part of the model? Choose all that apply.



- ☐ $\frac{4}{6}$
- ☐ $\frac{2}{6}$
- ☐ $\frac{2}{4}$
- ☐ $\frac{1}{2}$
- ☐ $\frac{1}{3}$

9. Two friends bought a strip of tickets for the school carnival. Arlo used $\frac{5}{6}$ of his tickets. Jayson used $\frac{6}{6}$ of his tickets.

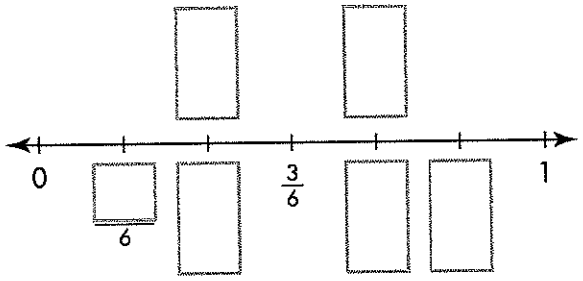


Which is a true comparison?

- Ⓐ $\frac{5}{6} > \frac{6}{6}$
- Ⓑ $\frac{5}{6} < \frac{6}{6}$
- Ⓒ $\frac{6}{6} < \frac{5}{6}$
- Ⓓ $\frac{6}{6} = \frac{5}{6}$

10. Twins Garry and Larry had identical casseroles for their graduation. At their party, the guests ate $\frac{3}{4}$ of Garry's casserole and $\frac{2}{4}$ of Larry's casserole. The guests ate more of whose casserole? Explain.

11. Noah wants to know if two pieces of wood are the same length. One piece is $\frac{4}{6}$ of a yard. The other is $\frac{2}{3}$ of a yard. Fill in the fractions below to show if they are the same length.



12. Olivia used colored ribbon for a craft project. She used $\frac{1}{6}$ of a yard of green, $\frac{1}{3}$ of a yard of red, and $\frac{1}{4}$ of a yard of yellow. Which ribbon is the longest?

13. Ansel spent 2 hours working on a birdhouse. At the end of the 2 hours, he had finished $\frac{1}{4}$ of the birdhouse. If he is able to finish the same fraction of a birdhouse every 2 hours, what fraction shows the number of birdhouses Ansel can make in 8 hours?

Ⓐ $\frac{1}{4}$

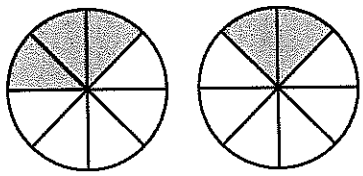
Ⓑ $\frac{2}{4}$

Ⓒ $\frac{4}{4}$

Ⓓ $\frac{8}{4}$

14. Erika spent $\frac{2}{3}$ of her allowance. Write an equivalent fraction for the amount she did **NOT** spend.

15. The Martin family ate two kinds of pizza for dinner. There was $\frac{3}{8}$ of the cheese pizza left and $\frac{2}{8}$ of the pepperoni pizza left.



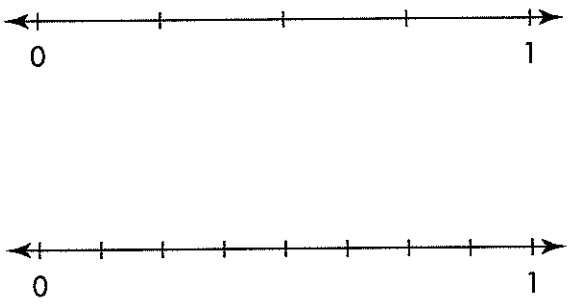
Cheese Pepperoni

Choose all that apply.

- ☐ $\frac{2}{8} < \frac{3}{8}$
- ☐ $\frac{2}{8} > \frac{3}{8}$
- ☐ $\frac{3}{8} < \frac{2}{8}$
- ☐ $\frac{3}{8} > \frac{2}{8}$
- ☐ $\frac{2}{8} = \frac{3}{8}$

16. Write each fraction on the correct number line. Then circle the equivalent fractions shown on the number lines.

$\frac{1}{4}$ $\frac{1}{8}$ $\frac{3}{4}$ $\frac{6}{8}$ $\frac{4}{4}$ $\frac{2}{8}$



17. Draw lines to match equivalent fractions.

$\frac{3}{6}$	$\frac{6}{3}$
$\frac{3}{4}$	$\frac{2}{4}$
$\frac{8}{4}$	$\frac{2}{8}$
$\frac{1}{4}$	$\frac{6}{8}$

18. For questions 18a–18d, choose *Yes* or *No* to tell if the comparison is true.

18a. $\frac{3}{6} > \frac{3}{8}$ ○ Yes ○ No

18b. $\frac{3}{6} > \frac{3}{4}$ ○ Yes ○ No

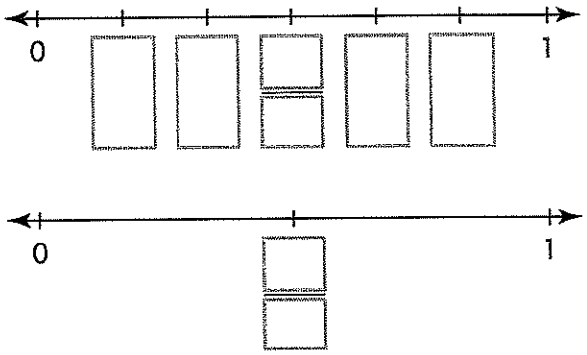
18c. $\frac{3}{3} < \frac{3}{8}$ ○ Yes ○ No

18d. $\frac{3}{4} > \frac{3}{8}$ ○ Yes ○ No

19. Chase and Abigail walked the same distance to school. In ten minutes, Chase walked $\frac{2}{6}$ and Abigail walked $\frac{1}{2}$ of the distance. Conjecture: In ten minutes, Abigail walked farther than Chase.

Part A

Complete the number lines to help justify the conjecture.



Part B

Use the number lines to justify the conjecture.

20. For each pair of fractions, write the equivalent whole number in the box.

$\frac{12}{4} = \frac{6}{2} = \square$

$\frac{24}{6} = \frac{12}{3} = \square$

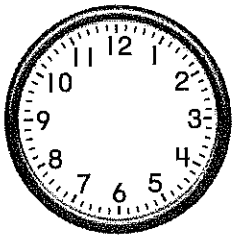
$\frac{8}{8} = \frac{3}{3} = \square$

Name _____

Topic **14**
Assessment

3.MD.A

1. Draw hands on the clock to show 4:33.



2. Joseph and Ernie walked the same distance to baseball practice. Their start and end times were different. Who walked faster and by how many minutes?

Joseph

Start

End

Ernie

Start

End

Ⓐ Ernie; 5 minutes faster than Joseph

Ⓑ Joseph; 5 minutes faster than Ernie

Ⓒ Joseph; 15 minutes faster than Ernie

Ⓓ They finished in the same amount of time.

3. A pet store sells bags of dog food. Each bag weighs 3 kilograms. Draw lines to match each number of bags on the left with the correct total weight on the right.

2 bags	9 kilograms
4 bags	12 kilograms
3 bags	6 kilograms
6 bags	18 kilograms

4. Name a metric unit that would be best to measure the capacity of a teacup.

5. Sydney is looking for a tool to measure the mass of a pineapple. Which tool should she use?

Ⓐ Yardstick

Ⓑ 1-liter container

Ⓒ Pan balance

Ⓓ Clock

6. Mrs. Brooks leaves for work each day at 8:00 A.M. To get ready for work, Mrs. Brooks needs 10 minutes to shower, 15 minutes to eat breakfast, and 20 minutes to get dressed. What time does Mrs. Brooks need to begin getting ready for work? Use reasoning to decide.

Part A

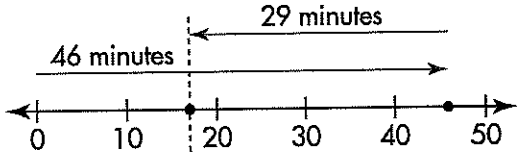
Describe the quantities you know.

Part B

Solve the problem. Explain your reasoning. You can use a picture to help.

7. Jaxson has 4 full bottles of milk. Each bottle holds 2 liters. How much milk does Jaxson have?

8. Maria rode her bike for 46 minutes on Saturday and 29 minutes on Sunday. How many more minutes did Maria ride her bike on Saturday?



Ⓐ 1 hour 15 minutes

Ⓑ 29 minutes

Ⓒ 17 minutes

Ⓓ 7 minutes

9. Mrs. Abita writes a recipe and uses the measurement units shown below. Complete the recipe by writing the appropriate measurement unit in each blank.

g kg mL L

2 _____ of flour

150 _____ of sugar

50 _____ of vanilla extract

1 _____ of milk

10. Lizi measured the capacity of a large tank using liters. Ahmad measured the same tank using milliliters. How did the measurements compare? Choose all the sentences that are true.

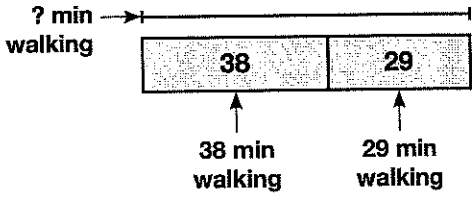
- ☐ There were an equal number of milliliters and liters.
- ☐ There were fewer liters than milliliters.
- ☐ There were more liters than milliliters.
- ☐ There were fewer milliliters than liters.
- ☐ There were more milliliters than liters.

11. Danielle said the mass of her water bottle is about 800 milliliters. Adam said it is 800 grams. Who is correct? Choose the best answer.

- Ⓐ Danielle is correct because milliliters are metric units.
- Ⓑ Adam is correct because grams are units of mass and milliliters are units of capacity.
- Ⓒ They are both correct because grams and milliliters are units of capacity.
- Ⓓ Neither is correct because their estimates are not reasonable.

12. Explain why it would be better to use kilograms rather than grams to measure the mass of a desk.

13. Rudy participated in a class exercise challenge. It took Rudy 38 minutes to walk the first part of the challenge. He walked the rest of the challenge in 29 minutes. In how much time did Rudy complete the challenge?



14. Is the capacity of each object best measured in liters? Choose *Yes* or *No*.

14a. Milk jug	○ Yes	○ No
14b. Raindrop	○ Yes	○ No
14c. Ice cube	○ Yes	○ No
14d. Bathtub	○ Yes	○ No

15. Marilyn used a pan balance to find the mass of her bowling ball. She said it was 6 kilograms. Is her answer reasonable? Explain.

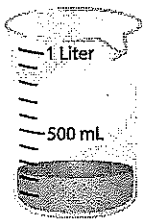
16. Look at the time on the clock below. Choose all the ways to write this time.

- ☐ 12:42
- ☐ 18 minutes before 12
- ☐ 18 minutes before 1
- ☐ 42 minutes after 12
- ☐ 1:18

17. Mrs. Lopez left for work at 6:35 A.M. She arrived at work 40 minutes later. What time did she arrive at work?

18. Tyler used 18 kilograms of potting soil to fill flower boxes. He had already used 23 kilograms of potting soil to fill the flower pots. How many kilograms of potting soil did Tyler use in all?

19. The lines on the container below show its capacity in milliliters. Mei filled the container to the 1-liter mark with grape juice. Then she drank some of the juice. How many milliliters of grape juice did she drink?



Name _____

Topic **15**
Assessment

3.GA

1. Robin told Mary that she drew a quadrilateral with all angles the same size. Robin said the shape must be a square. Is Robin correct?

Ⓐ Yes, there is no other shape it could be.

Ⓑ No, it could also be a rectangle.

Ⓒ No, it could also be a trapezoid.

Ⓓ No, it could also be a triangle.

2. Use the words in the box below. Write the other names for each shape in the correct columns.

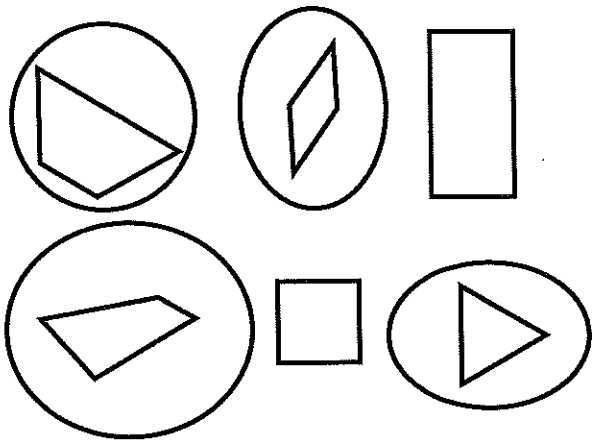
Trapezoid	Square

rectangle	parallelogram
rhombus	quadrilateral

3. Name and draw a picture of a convex polygon with 4 unequal sides.

4. Pete drew a parallelogram with 4 equal sides. What are the possible shapes it could be?

5. Neil sorted the shapes below. He then circled only the shapes that fit a rule. What rule did Neil use to circle some of the shapes?



6. Choose all of the true statements.

☐ A rhombus is a quadrilateral.

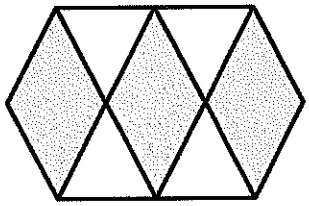
☐ A square is a rectangle.

☐ All quadrilaterals are parallelograms.

☐ A triangle with a right angle is a square.

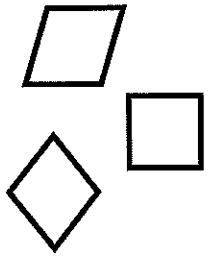
☐ A rectangle with equal sides is a square.

7. What polygons did Tomas use to make the quilt design?

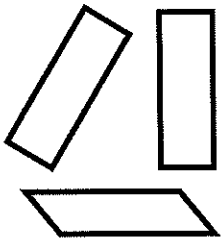


8. Look at each group.

Group 1



Group 2



Part A

How are the two groups alike?

Part B

How are the two groups different?

9. For Questions 9a–9d, choose Yes or No to tell if a rhombus always belongs to the named group.

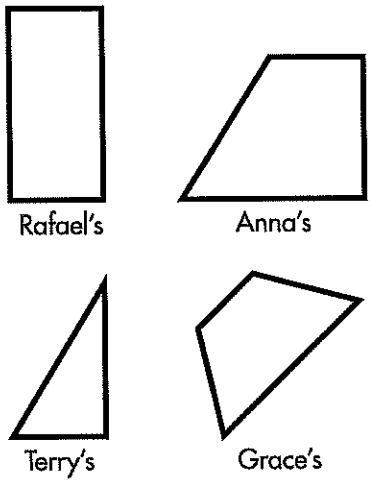
9a. rectangle ○ Yes ○ No

9b. square ○ Yes ○ No

9c. parallelogram ○ Yes ○ No

9d. trapezoid ○ Yes ○ No

10. Whose shape has only one pair of right angles?



11. Name and draw a quadrilateral that is **NOT** a trapezoid or rhombus. Is there another shape you could have drawn? Explain.

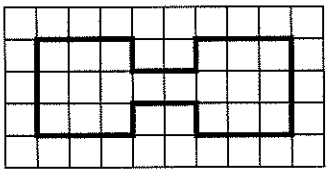
Name _____

Topic **16**
Assessment

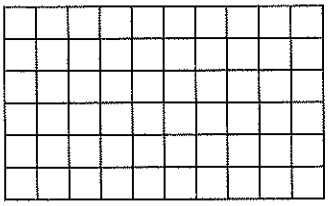
3.MD.7

1. What is the perimeter of a pentagon if all the sides are 7 inches?

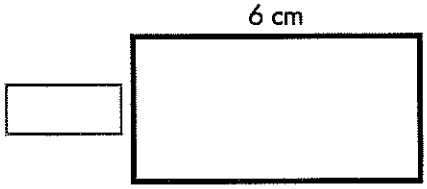
2. Patsy's tile design is shown below.



Draw another tile design that has the same area as Patsy's design and a different perimeter from Patsy's design.



3. John drew a rectangle with a perimeter of 18 centimeters. He labeled one side 6 centimeters, but he forgot to label the other side. Write a number in the box to show the missing side length.



4. Mrs. Nanduri has 42 carpet squares. How should she arrange them so that she has the smallest perimeter?

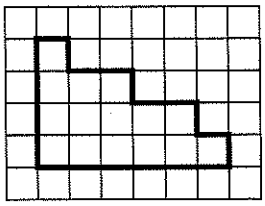
Ⓐ 21 by 2 rectangle

Ⓑ 14 by 3 rectangle

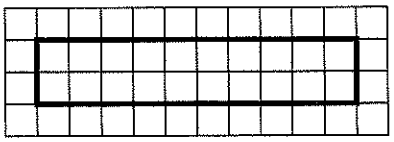
Ⓒ 6 by 7 rectangle

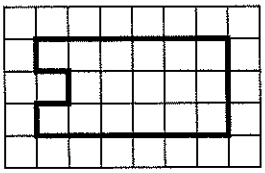
Ⓓ 42 by 1 rectangle

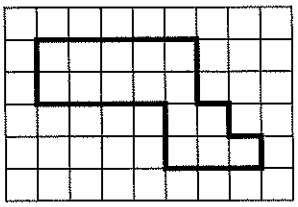
5. Hayley's garden design is below.

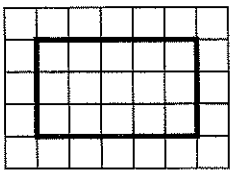


Do any of the shapes below have a different area from Hayley's design and the same perimeter as Hayley's design? For questions 5a–5d, choose Yes or No.

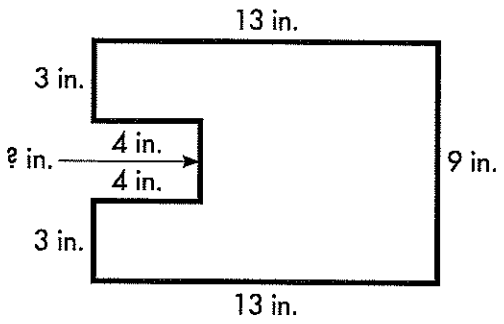
5a.  ○ Yes ○ No

5b.  ○ Yes ○ No

5c.  ○ Yes ○ No

5d.  ○ Yes ○ No

6. The perimeter of the polygon is 52 inches. What is the missing side length?



Ⓐ 2 inches

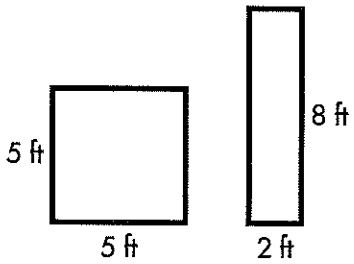
Ⓑ 3 inches

Ⓒ 4 inches

Ⓓ 9 inches

7. Mr. Higgs measures the perimeter of an equilateral triangle. One of the sides is 8 cm. What is the perimeter of the shape?

8. Choose all of the statements that are true about the figures below.



☐ The shapes have different perimeters.

☐ The shapes have different areas.

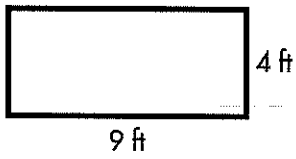
☐ The shapes have the same perimeter.

☐ The shapes have the same area.

☐ The square has a greater area than the rectangle.

9. Chuck's trapezoid-shaped garden has a perimeter of 22 yd. He knows the length of three sides: 3 yd, 6 yd, and 9 yd. What is the length of the fourth side?

10. Mary's bedroom rug is shown below.



Part A

Find the perimeter and area of the rug.

Part B

Could a square with whole number side lengths have the same perimeter as the rug? The same area? Explain.

11. Max found the perimeter of a square. If the perimeter is 112 feet, what is the side length?

Ⓐ 24 feet

Ⓑ 28 feet

Ⓒ 224 feet

Ⓓ 448 feet