Name _____

Pyne Arts
Entering Grade 4
Summer Review

1. Drake needs to be at his job by 7:00 P.M. It takes him 30 minutes to ride his bike to the job, 60 minutes to make and eat dinner, and 50 minutes to do chores. What time does Drake need to start his chores?

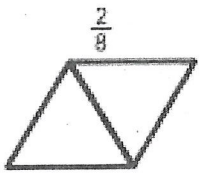
Ⓐ 4:20 P.M.

Ⓑ 4:40 P.M.

Ⓒ 5:05 P.M.

Ⓓ 5:40 P.M.

2. Draw a picture and write a fraction to represent the whole.



3. Which equation shows the Associative Property of Multiplication?

Ⓐ $3 \times 2 = (2 \times 2) + (1 \times 2)$

Ⓑ $(3 \times 2) \times 8 = 3 \times (2 \times 8)$

Ⓒ $3 \times 2 \times 1 = 3 \times 2$

Ⓓ $3 \times 2 \times 0 = 0$

4. Divide the number line into equal lengths and label the point $\frac{3}{5}$.

5. Find the difference for $861 - 384$. Explain how to solve the problem.

6. A. Three friends equally share 1 hour of time on a computer at the library. What fraction of an hour will each friend use the computer?

Ⓐ $\frac{3}{1}$ Ⓒ $\frac{2}{3}$

Ⓑ $\frac{3}{3}$ Ⓓ $\frac{1}{3}$

B. If two more friends join the group, what fraction of an hour will each friend have to use the computer?

Ⓐ $\frac{1}{5}$ Ⓒ $\frac{2}{3}$

Ⓑ $\frac{1}{6}$ Ⓓ $\frac{5}{1}$

7. Explain how to break apart $483 + 316$ and solve.

8. Kelly is decorating her room with a mirror and 3 decals. If the mirror costs $12 and the decals are $7 each, how much will Kelly spend?

9. Which shapes always have two pairs of sides on lines that never cross? Select all that apply.

- ☐ Square
- ☐ Parallelogram
- ☐ Rectangle
- ☐ Rhombus
- ☐ Trapezoid

10. Find the sum of 60 and 150.

11. Jerra is making a rectangular garden 9 feet long and 6 feet wide.

A. What is the perimeter of Jerra's garden?

B. Jerra plans to put a fence around the garden with fence posts that are 3 feet apart. How many fence posts will she need? Draw a picture to help solve the problem.

12. Write an addition problem with two 3-digit numbers that requires regrouping. Then write an addition problem with two 3-digit numbers that does **NOT** require regrouping.

13. Jolene said that $\frac{1}{4}$ is greater than $\frac{1}{2}$ because 4 is greater than 2. Is she correct?

Ⓐ Yes, she is correct. The correct comparison is $\frac{1}{4} > \frac{1}{2}$.

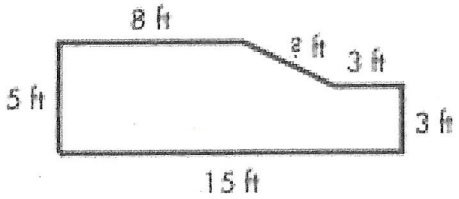
Ⓑ No, a whole divided into 4 equal parts has smaller parts than if the whole were divided into 2 equal parts. The correct comparison is $\frac{1}{4} < \frac{1}{2}$.

Ⓒ No, the denominators do not help you find which fraction is greater. The correct comparison is $\frac{1}{2} = \frac{1}{4}$.

Ⓓ No, fractions that both have a numerator of 1 are always equal. The correct comparison is $\frac{1}{2} = \frac{1}{4}$.

14. Renee says that her insulated mug will hold 10 liters of hot chocolate. Is this reasonable? Explain.

15. A. Regina is building a fence around her garden as shown below. She used 40 feet of fencing. What is the length of the side Regina did not measure?



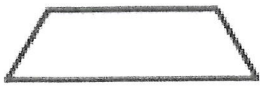
Ⓐ 4 feet Ⓒ 6 feet

Ⓑ 5 feet Ⓓ 7 feet

B. Regina's neighbor George also uses 40 feet of fencing for his rectangular garden. Which could be the dimensions of George's garden? Select all that apply.

- ☐ 8 feet by 5 feet
- ☐ 16 feet by 4 feet
- ☐ 8 feet by 9 feet
- ☐ 11 feet by 9 feet
- ☐ 10 feet by 10 feet

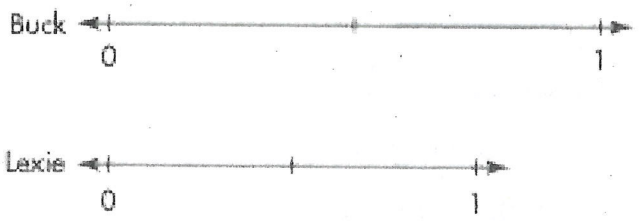
16. Select all of the terms that can describe the figure.



- ☐ Parallelogram
- ☐ Quadrilateral
- ☐ Polygon
- ☐ Rhombus
- ☐ Trapezoid

17. Maya plans to serve dinner at 6:00 P.M. It takes Maya 20 minutes to iron her clothes, 45 minutes to clean up the house, and 50 minutes to prepare dinner. If Maya wants to iron before cleaning and preparing dinner, what time should she start ironing her clothes? Use a number line to show your reasoning.

18. Lexie drew a number line showing $\frac{1}{2}$. Buck did the same.



A. Which answer explains why their number lines look different?

Ⓐ Lexie's number line is longer.

Ⓑ Lexie's number line shows thirds.

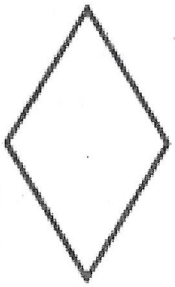
Ⓒ The distance from 0 to 1 is different.

Ⓓ They are not different, both show $\frac{1}{2}$.

B. Lexie and Buck use number lines that have the same distance from 0 to 1. Lexie draws $\frac{5}{8}$ on her number line and Buck draws $\frac{3}{8}$ on his number line. Whose fraction is greater? Explain.

19. Chad and Amanda went shopping. They spent 33 minutes in the toy store and 47 minutes in the clothing store. How long did Chad and Amanda spend shopping?

20. This figure is a rhombus, but it is **NOT** a square. Why?



21. Write two fractions with a denominator of 6 that are closer to 0 than to 1. Explain your reasoning.

22. A sponge soaks up water. Leah says that the sponge can soak up 30 liters of water. Is her answer reasonable?

Ⓐ No. Leah probably meant $\frac{1}{3}$ liter instead of 30 liters.

Ⓑ No. Leah probably meant 3 liters instead of 30 liters.

Ⓒ No. Leah probably meant 3 grams instead of 30 liters.

Ⓓ Yes. Three liters is a reasonable amount of water in a sponge.

23. What are the dimensions of 4 rectangles that have a perimeter of 16 feet?

A. What is the area of each of the rectangles?

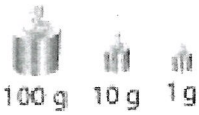
B. What generalization can you make from your answer?

24. A rectangle with a perimeter of 16 inches has the same area as a rectangle that has a perimeter of 14 inches.

A. What is the area of the two rectangles?

B. What are the dimensions of each rectangle?

25. Natasha bought some green grapes that weigh 47 grams. She also bought some purple grapes that weigh 61 grams. Using the weights shown, what are two combinations of weights that would balance the total weight of Natasha's grapes?



26. A. Carlos is making a square picture frame. The length of one side is 8 inches. What is the perimeter of the picture frame?

Ⓐ 16 inches

Ⓑ 32 inches

Ⓒ 40 inches

Ⓓ 64 inches

B. Carlos wants to make a rectangular picture frame with the same perimeter. What could be the dimensions of the rectangular picture frame?

27. A quadrilateral with 1 pair of sides of equal length and only 1 right angle is **NOT** a rhombus. Why?

Ⓐ A rhombus cannot have right angles.

Ⓑ A rhombus must have 4 right angles.

Ⓒ All 4 sides of a rhombus are the same length.

Ⓓ A rhombus cannot have sides of equal length.

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28. Sue ran $\frac{2}{6}$ mile on Monday and $\frac{3}{6}$ mile on Tuesday.

A. Which day did she run farther? Use the number line to help solve.

Ⓐ Monday

Ⓑ Tuesday

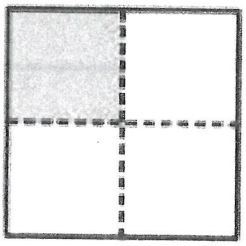
Ⓒ She ran the same distance both days.

Ⓓ Not enough information given

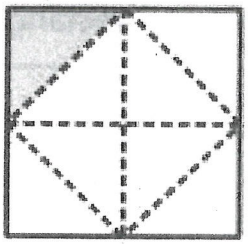
B. On Wednesday, Sue ran $\frac{3}{8}$ mile. She says the distance she ran on Wednesday is the same as the distance she ran on Tuesday. Is she correct? Explain.

29. A. Cheryl has 2 fabrics. Which best describes the relationship between the shaded area of each fabric?

Fabric 1



Fabric 2



Ⓐ $\frac{1}{4} > \frac{1}{8}$

Ⓑ $\frac{1}{4} = \frac{1}{8}$

Ⓒ $\frac{1}{4} < \frac{1}{8}$

Ⓓ Not enough information given

B. Suppose 1 more small square is shaded in Fabric 1. Which fraction describes the total amount of Fabric 2 that must be shaded for the two fabrics to show the same amount shaded?

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30. A. An all-city swim meet started at 10:30 A.M. It ended at 4:45 P.M. How long did the swim meet last?

Ⓐ 4 hours 15 minutes

Ⓑ 5 hours 45 minutes

Ⓒ 6 hours

Ⓓ 6 hours 15 minutes

B. There is a 45-minute lunch break during the swim meet. How long does the meet last not including the lunch break?