

1. Directions: Circle each box you want to select. You must select all correct boxes.

A bag of candy contains 4 fruit chews, 3 caramels, and 5 chocolate candies. Which of the following ratios could represent caramels to all candy?

3 to 9

3:12

12 to 3

4:1

1 to 4

12:3

1 to 3

9:3

1:4

2. Directions: After showing your thinking, write your answer in the box.

Grover High School plays twelve football games in a season and eight of them are away. New Kent High School plays the same number of games in a season and plays six away games. What is the ratio of away games for New Kent High School compared to Grover High School?

3. Directions: Circle the box you want to select. You must select all correct answers.

The record of two baseball teams is shown below.

	Blue Jays	Cardinals
Wins	14	8
Losses	6	20

Which of the following ratios represent the total games played by the Blue Jays to the total games played by the Cardinals?

7:10

8 to 28

14:6

4:14

20 to 28

14 to 8

6 to 20

10:14

4. Directions: Circle the box you want to select. You must select all correct answers.

Which of the following could be represented by the ratio 1:2?

One win and one loss

Two losses compared to one win

Four wins compared to eight losses

One girl compared to two girls

Six brown eggs compared to a dozen white eggs

5. Directions: Circle the box you want to select.  
You must select all correct answers.

Which of the following decimals or percents  
are equivalent to  $\frac{3}{5}$ ?

30%	0.3	60%	0.6
0.5	50%	0.35	80%

6. Directions: Circle the box you want to select.  
You must select all correct answers.

Which of the following are equivalent to  
45%?

45	$\frac{4}{5}$	$\frac{45}{100}$	0.45
$\frac{9}{20}$	4.5	$\frac{80}{100}$	0.045

7. Directions: Color in the blocks on the grid.

Shade the grid to represent 0.3.


8. Directions: Color in the blocks on the grid.

Shade the grid to represent  $\frac{15}{25}$ .


9. Directions: Circle the box you want to select.  
You must select all correct answers.

Which of the numbers in the boxes below  
are equivalent to the value represented on  
the grid?


20%	40%	$\frac{20}{50}$	0.2
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10. Directions: Write your answer in the series of  
boxes provided. You must complete each box.

Order the values below from greatest to  
least.

0.26       $\frac{1}{4}$       24%

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11. Directions: Write your answer in the box.

**Compare the decimal numbers using the correct mathematical symbol (<, >, =).**

4.937

4.918

12. Directions: Write your answer in the box.

**Compare the fractions using the correct mathematical symbol (<, >, =).**

$\frac{5}{8}$

$\frac{3}{4}$

13. Directions: Shade the model to represent the multiplication problem below. Then write your final answer in the box.

Solve  $\frac{2}{3} \cdot \frac{3}{4}$


14. Directions: Shade in the boxes below.

**Shade the boxes below to show the solution**

to  $\frac{1}{2} \cdot \frac{3}{4}$


15. Directions: Circle the box you want to select.

**Which question describes  $\frac{3}{4} \cdot \frac{1}{3}$  ?**

How many  $\frac{3}{4}$  make  $\frac{1}{3}$ ?

How many  $\frac{1}{3}$  make  $\frac{3}{4}$ ?

What is  $\frac{3}{4}$  parts of  $\frac{1}{3}$ ?

What is  $\frac{1}{3}$  parts of  $\frac{3}{4}$ ?

16. Directions: Circle the box you want to select.

**Which expression describes  $\frac{1}{3} \cdot 6$  ?**

6 groups of  $\frac{1}{3}$

$\frac{1}{3}$  of 6

$\frac{1}{3}$  and 6

$\frac{1}{3}$  added to 6

17. After showing your thinking, write your answer in the box as a fraction or mixed number in simplest form.

$$2\frac{3}{4} \cdot 1\frac{1}{2} =$$

18. After showing your thinking, write your answer in the box as a fraction or mixed number in simplest form.

$$2\frac{3}{4} \cdot 1\frac{1}{5} =$$

19. After showing your thinking, write your answer in the box as a fraction or mixed number in simplest form.

$$1\frac{5}{6} \div \frac{2}{3} =$$

20. After showing your thinking, write your answer in the box as a fraction or mixed number in simplest form.

$$3 \div 1\frac{3}{5} =$$

21. After showing your thinking, write your answer in the box as a fraction or mixed number in simplest form.

**Susie ran  $\frac{3}{4}$  of a mile on Monday,  $\frac{1}{2}$  of a mile on Tuesday and  $\frac{5}{6}$  of a mile on Wednesday. How far did she run over the three days?**

22. After showing your thinking, write your answer in the box as a fraction or mixed number in simplest form.

**The table shows Ralph's daily log for two weeks of running.**

Week	Monday	Wednesday	Friday
Week 1	$1\frac{1}{4}$ mi	Off	$2\frac{1}{2}$ mi
Week 2	Off	$2\frac{3}{4}$ mi	$1\frac{7}{8}$ mi

**How much further did Ralph run during week 2 than during week 1?**

23. After showing your thinking, write your answer in the box as a fraction or mixed number in simplest form.

**Marcus bought  $\frac{7}{8}$  pounds of jelly beans and Thomas bought  $1\frac{1}{4}$  pounds of jelly beans. How many pounds of jelly beans do the boys have together?**

24. After showing your thinking, write your answer in the box as a fraction or mixed number in simplest form.

**Justin had a board that was  $\frac{4}{5}$  of a yard long. He sawed off  $\frac{1}{3}$  of a yard. How much board is left?**

25. After showing your thinking, write your answer in the box as a fraction or mixed number in simplest form.

**A candy store has  $4\frac{4}{5}$  pounds of sour jelly beans. How many  $\frac{1}{3}$  pounds bags of sour jelly beans can be made?**

26. After showing your thinking, write your answer in the box as a fraction or mixed number in simplest form.

**A brownie recipe calls for  $1\frac{1}{4}$  cups of sugar. How much sugar is needed to make one-half of the recipe?**

27. After showing your thinking, write your answer in the box as a fraction or mixed number in simplest form.

**A board is  $2\frac{2}{3}$  meters long. How many  $\frac{1}{3}$  meter pieces can be cut from the board?**

28. Directions: After showing your thinking, write your answer in the box. Your answer should be in decimal form.

**A pharmacist is filling a medication prescription. Each dose is 1.225 mL. How much medicine is needed for 15 doses?**

29. Directions: After showing your thinking, write your answer in the box.

**The high school cross country team ran the following number of miles each day of practice over the week: 3.5, 4.6, 6.2, 2.5, and 3.2. What is the total number of miles ran during the week?**

30. Directions: After showing your thinking, write your answer in the box. Your answer should be in decimal form.

**A scientist has 12.654 mL of water in a beaker and adds 1.278 mL of dye. What is the total amount of liquid in the beaker?**

31. Directions: After showing your thinking, write your answer in the box. Your answer should be in decimal form.

**A car uses 13.4 gallons of gas to travel 234.5 miles. How many miles did the car drive for each gallon of gas?**

32. Directions: After showing your thinking, write your answer in the box. Your answer should be in decimal form.

**Beth collected 1.4 pounds of candy. She wants to eat the same amount of candy each day. How much candy can she eat each day so it will last 20 days?**

33. Directions: After showing your thinking, write your answer in the box. Your answer should be in decimal form.

**A car company is testing different kinds of windshields. Windshield A is 0.576 cm thick, Windshield B is 0.673 cm thick and Windshield C is 0.492 cm thick. What is the difference between the thickest and thinnest windshields?**

34. Directions: After showing your thinking, write your answer in the box. Your answer should include the dollar symbol (\$) and decimal.

**Six friends went to the movies. The total cost for movie tickets was \$55.50. How much was each movie ticket?**

35. Directions: After showing your thinking, write your answer in the box. Your answer should include the dollar symbol (\$) and decimal.

**Mrs. Zell went shopping and bought two pairs of jeans and three shirts. Each pair of jeans cost \$24.50 and each shirt cost \$14.65. What was the total amount Mrs. Zell spent?**

36. Directions: Write the number in scientific notation in the boxes.

Show 0.000025 written in scientific notation.

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37. Directions: Write the inequality symbol in the empty box.

Compare each pair and write the correct inequality symbol. Use either > or <.

- |                         |             |                      |
|-------------------------|-------------|----------------------|
| a. $8.23 \times 10^4$   | <div></div> | $1.4 \times 10^5$    |
| b. $4.3 \times 10^{-5}$ | <div></div> | $9.2 \times 10^{-6}$ |
| c. $7.3 \times 10^3$    | <div></div> | $6.12 \times 10^3$   |

38. Directions: Write your answers in the boxes. All fractions must be written in simplest form. Percents should include %.

What fraction and percent are equivalent to 0.2?

<div>Fraction</div>	=	<div>Decimal</div>	=	<div>Percent</div>
		0.2		

39. Directions: After showing your thinking, write your answer in the box. Use a leading zero for decimal numbers (for example 0.99).

What is  $3.02 \times 10^{-5}$  when written in standard notation?

40. Directions: Write the correct symbol in the box.

Which symbol makes the statement below true? Use >, <, ≤, ≥, or =.

$$8.769 \times 10^5 \quad \div \quad 1.032 \times 10^6$$

41. Directions: Write your answer in each box.

Write the numbers below into the boxes to order the numbers from greatest to least.

0.166      16.8%       $1.6 \times 10^{-2}$

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