

Homework #9: Due Friday, Nov. 15

Name _____
Buckley or Gietzen

1. Decide whether the ratios below are equivalent. Write YES or NO below each set. Show work to PROVE whether the ratios are equivalent or not.

a. $7:9 = 21:27$

b. $\frac{15}{18} = \frac{3}{4}$

c. $5 \text{ to } 4 = 4 \text{ to } 5$

d. $2 \text{ cats to } 3 \text{ dogs} = 22 \text{ cats to } 33 \text{ dogs}$

2. Michael and Jacob are training to run a marathon. They keep track of their practice runs and one day they compare their distances.

- a. Jacob says he ran **twice** as far as Michael. Give two more possibilities for the ratio of Jacob's distance to Michael's distance.

12 miles : 6 miles _____

- b. The next day, Michael says the ratio of the distance he ran to the distance Jacob ran was **5:4**.

If Michael ran 15 miles, how far did Jacob run? _____

3. Joey stops at the gas station to buy gas. The car has a 16-gallon tank, and the fuel gauge says there is $\frac{3}{8}$ of a tank of gas.

- a. How many gallons of gas are in the tank right now?

- b. If Joey buys 6 gallons of gas, what fraction of the tank will the fuel gauge read after he adds the 6 gallons?

#4-10: MULTIPLE CHOICE

Circle the best choice. (Put ratios in *simplest form*.)

4. Rose has a playlist with 40 rock songs and 28 country songs. What is the ratio of country songs to rock songs on the playlist?
- A. 7:10
 - B. 1:40
 - C. 40:1
 - D. 10:7
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5. Blake has a garden in his backyard. He picked 44 tomatoes from 4 tomato plants. What is the ratio of tomato plants to tomatoes picked?
- A. 1:11
 - B. 11:1
 - C. 1:4
 - D. 4:1
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6. Juan plays little league baseball. In 27 at-bats, he had 9 hits. What is the ratio of at-bats to hits?
- A. 1:3
 - B. 9:1
 - C. 1:9
 - D. 3:1
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7. A building has 45 apartments and 50 bathrooms. What is the ratio of apartments to bathrooms?
- A. 45:1
 - B. 10:9
 - C. 1:45
 - D. 9:10
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8. Over time, Bailey has buried 4 large bones and 6 small bones in a hole. What is the ratio of small bones to large bones in the hole?
- A. 3:2
 - B. 3:5
 - C. 2:3
 - D. 5:3
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9. The ratio of french fries to packets of ketchup in Philip's bag is 7:1. What does this mean?
- A. There are 6 more french fries than packets of ketchup.
 - B. There are 7 more french fries than packets of ketchup.
 - C. For every 7 packets of ketchup, there is 1 french fry.
 - D. For every 7 french fries, there is 1 packet of ketchup.
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10. George has a box of chocolates. There are 9 pieces of dark chocolate and 15 pieces of milk chocolate in the box. What is the ratio of pieces of dark chocolate to pieces of milk chocolate?
- A. 5:3
 - B. 1:15
 - C. 3:5
 - D. 15:1

11. Two boys were playing checkers. The ratio of games Dave won to games Josh won was 10:7. If Dave won 40 games, how many games did Josh win?

12. A restaurant offers diet soda and regular soda. In one day they sold 24 diet sodas. If the ratio of diet sodas sold to regular sodas sold was 1:3, how many **regular** sodas were sold?

How many **total** sodas were sold? _____

13. At a carnival Luke bought 10 tickets. If he used 3 tickets trying to win the ring toss game, what is the ratio of tickets he now has to tickets he's used?
_____ to _____

14. At a restaurant the ratio of kid's meals sold to adult meals sold was 9:2. If there were 81 kids meals sold, how many adult meals were sold?

15. Luis made **6 pizzas**, which he sliced into **fourths**.

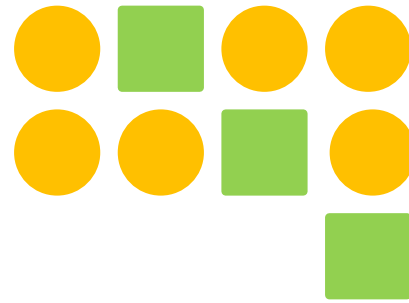
a. Draw a picture of the 6 pizzas, cut into fourths:

b. How many total slices of pizza will he have? _____

c. After considering how many people he would be serving, he thought to himself, "Each person can have 3 slices." How many people did he make the pizza for?

16. Write a **ratio** to compare the number of circles to the number of squares.

_____ : _____



If the ratio remains the same, how many squares will you have if you have 24 circles?

_____ squares

17. Solve for x to make an **equivalent fraction**.

a. $\frac{10}{45} = \frac{2}{x}$ $x =$ _____

b. $\frac{6}{7} = \frac{x}{21}$ $x =$ _____

c. $\frac{9}{4} = \frac{x}{28}$ $x =$ _____

18. Use the following information to fill in the table below: "Four large pizzas contains 32 slices."

- a. Fill in the table.

Slices		16	32		72
Pizza	1		4	7	

- b. How many slices are in one pizza?

Write your answer as a **unit rate**: _____