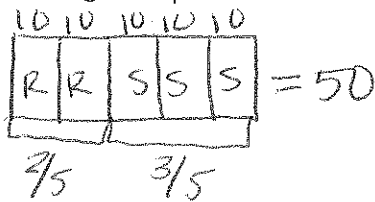


RATIO AND PROPORTION REVIEW

NAME ANSWER KEY Period: _____

1. There are 50 dogs in a park. Two fifths of the dogs are running. How many dogs are sitting?



30 dogs sitting

Running	2	$\times 10 = 20$
Sitting	3	$\times 10 = 30$
Total	5	50

2. 30 children took a spelling test. In the class were 10 As, 8 Bs, 2 Cs, and 10 Ds. Is 1:1 a part to part ratio for As to Ds? Why or why not?

Yes! $\frac{10:10}{\div 10 \div 10} = 1:1$ Simplifies to 1:1

3. Maria worked 40 hours and made \$120 dollars. How much did she make per hour?

$\frac{\text{HRS}}{\text{\$}} \left(\times 3 \frac{40}{120} = \frac{1}{\text{\$ per hour}} \right) \times 3 \quad 1 \times 3 = \boxed{\$3}$

4. 23 is 50% of what numbers?

$\frac{15}{\text{of}} = \frac{1}{100} \left(\times 2 \frac{23}{x} = \frac{50}{100} \right) \times 2 \quad 23 \times 2 = \boxed{46}$

5. There are twelve new sofas brought to the store on Monday. Three of them are red. At this rate, how many sofas will be red if 40 sofas are brought to the store by Wednesday?

$\frac{\text{part}}{\text{total}} \quad \frac{\text{red}}{\text{new}} \left(\times 4 \frac{3}{12} = \frac{\text{red}}{40} \right) \times 4 \quad \boxed{10 \times 4 = 40}$

6. If 10 bottles of water cost \$6.50, how much does one bottle of water cost?

$\frac{\text{Bottles}}{\text{cost}} \quad \frac{10}{6.50} \xrightarrow{\div 10} \frac{1}{\text{\$}} \quad 10 \overline{) 6.50} = \boxed{.65}$

7. Is 6/9 and 10/15 a proportion? Why or why not?

Yes! $\frac{2}{3} \frac{6}{9} = \frac{10}{15} \frac{2}{3}$ Because they simplify to the same ratio.

8. Write a ratio to compare the letters of ROXANNEPURCELL to KENNEDY.

14:7
or
2 to 1

RATIO AND PROPORTION REVIEW

NAME _____ Period: _____

$$\begin{array}{r} 00.875 \\ 12 \overline{) 10.500} \\ \underline{96} \\ 90 \\ \underline{84} \\ 60 \end{array}$$

9. Jesus bought 12 pounds of papaya for \$10.50. The next day he bought 10 more pounds for the same price. How much did he pay for the extra 10 pounds of papaya?

$$\boxed{\$8.75 \text{ for 10 pounds}}$$

$$\begin{array}{r} 875 \\ \times 10 \\ \hline 8750 \end{array}$$

10. There are 5 dogs, 6 cats, 2 gerbils, and 1 tiger on the playground. What is the ratio of dogs to all animals?

$$5 + 6 + 2 + 1 = 14$$

dogs : all

$$\boxed{5:14}$$

11. If 16 oz = 1 pound, how many pounds are in 160 oz?

$$\frac{16 \text{ oz}}{1 \text{ pound}} = \frac{16 \overset{\times 10}{\text{oz}}}{1 \underset{\times 10}{\text{pound}}} = \frac{160}{10}$$

$$1 \times 10 = \boxed{10 \text{ pounds}}$$

12. There are six dogs and 30 bones in the back yard. Is 6 - 30 a correct representation of the ratio of dogs to bones?

No, we do not use dashes for ratios.

13. Write three correct representations of the ratio of dogs to bones in the above question.

6 to 30 $\frac{6}{30}$
6:30

14. Are 9/8 and 21/41 equivalent ratios? Why or why not?

$$\frac{9}{8} \neq \frac{21}{41}$$

No! They do not simplify to the same ratio

15. Aubrey uses 4 tablespoons of ranch dressing for every 3 lbs of salad. How many tbsp. of ranch dressing does she need to make 12 pounds of salad?

$$\frac{4 \text{ tablespoons}}{3 \text{ pounds}} = \frac{4 \overset{\times 4}{\text{tbsp}}}{3 \underset{\times 4}{\text{pounds}}} = \frac{16}{12}$$

$$4 \times 4 = \boxed{16 \text{ tablespoons}}$$

16. Ms. Purcell and Ms. Kennedy won first and second place in a math competition. They had to share the prize. For each \$6 Ms. Purcell won, Ms. Kennedy won \$2. If Ms Purcell won \$36, how much more money did she win than Ms Kennedy?

$$\frac{\text{Purcell}}{\text{Kennedy}} = \frac{6}{2} = \frac{36}{\$}$$

$$2 \times 6 = \$12 \text{ Kennedy won}$$

$$\$36 - \$12 = \boxed{\$24 \text{ more dollars for Purcell!}}$$

17. Ms. Purcell ate 28% of the lemon cake at a math party. If she ate seven slices of lemon cake, how many slices were left for Ms Kennedy?

$$\frac{\%}{100} = \frac{\text{Part}}{\text{Whole}} \quad \frac{\text{ate}}{\text{total}} \quad \frac{7}{x} = \frac{28}{100}$$

25 slices total

$$\begin{array}{r} 25 \text{ total} \\ - 7 \text{ eaten} \\ \hline 18 \text{ slices left} \end{array}$$

18. Ms Davis goes to the store and finds her favorite scarves on sale for 25% off. The scarves are on sale for \$75. What is the original price of the scarves?

100 - 25 = 75%

$$\frac{\text{Part}}{\text{Whole}} = \frac{\%}{100} \quad \text{or} \quad \frac{\text{Sale}}{\text{Original}} = \frac{\%}{100}$$

$$\frac{75}{\text{original}} = \frac{75}{100} \quad 100 \times 1 = \boxed{\$100 \text{ original}}$$

19. If 4 out of 5 students were on Instagram last night, what percent were on Instagram?

$$\frac{\text{Part}}{\text{Whole}} = \frac{\%}{100} \quad \frac{4}{5} \times 20 = \frac{\%}{100} = \boxed{80\%}$$

20. If it take 10 yards of wrapping paper to wrap 15 Christmas presents. How many yards will it take to wrap 6 Christmas presents?

$$\frac{\text{Yards}}{\text{Presents}} \quad \frac{10}{15} = \frac{?}{6}$$

Simplify! $\times 2$

$$2 \times 2 = \boxed{4 \text{ yards}}$$

21. Ms Purcell wants to adopt a lot of puppies. The pound has a lot of white and black puppies. The ratio of black puppies to white puppies is 1:4. If Ms Purcell adopts 50 puppies, how many of them will be white?

$$\frac{B}{W} = \frac{1}{4} \quad \frac{?}{4} = \frac{50}{4} \quad \boxed{40}$$

Total 50

$$\begin{array}{l} \text{Black} \quad \boxed{10} \\ \text{White} \quad \boxed{40} = 50 \\ \hline 40 \text{ white} \end{array}$$

22. The ratio of kilometers to centimeters is 1 km to 100000 cm. Write an equivalent ratio for 3.5 km to cm.

$$\frac{\text{Km}}{\text{cm}} \quad \frac{1}{100,000} = \frac{3.5}{\text{cm}}$$

$$\begin{array}{r} 100,000 \\ \times 3.5 \\ \hline 500,000 \\ 3,000,000 \\ \hline 3,500,000 \\ \text{cm} \end{array}$$