

Pre-Algebra Chapter 6, Review

Name _____ Date _____ Per _____

Remember to show your work and check it.

Write each ratio in simplest form.

1. 27 to 54

2. 8:12

1. _____

2. _____

3. $\frac{21}{42}$

3. _____

Write the given ratio in two other forms:

4. 8:19

4. _____

5. 4 to 5

5. _____

6. $\frac{7}{9}$

6. _____

Order the ratios from least to greatest.

7. $\frac{51}{25}$, 5:4, 13 to 10, 33:20, $\frac{17}{20}$

7. _____

Find the unit rate.

8. $\frac{\$195}{15 \text{ hours}}$

9. $\frac{392 \text{ miles}}{16 \text{ gallons}}$

8. _____

9. _____

Write the equivalent rate.

10. $\frac{728 \text{ glns}}{1 \text{ week}} = \frac{\text{glns}}{1 \text{ day}}$

11. $\frac{\$249}{5 \text{ days}} = \frac{\$}{1 \text{ hour}}$

10. _____

11. _____

Tell whether the ratios form a proportion.

12. $\frac{8}{9}, \frac{88}{99}$

13. $\frac{10}{43}, \frac{90}{54}$

12. _____

13. _____

Solve the proportion.

14. $\frac{5}{9} = \frac{x}{36}$

15. $\frac{x}{7} = \frac{28}{49}$

14. _____

15. _____

16. $\frac{x}{120} = \frac{1}{10}$

17. $\frac{4}{4.4} = \frac{x}{6.6}$

16. _____

17. _____

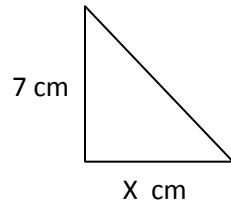
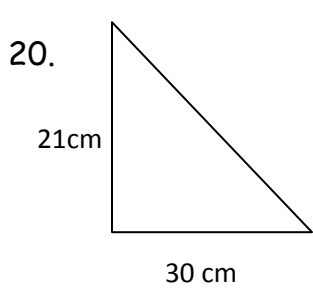
18. $\frac{2}{3.5} = \frac{x}{17.5}$

19. $\frac{25}{28} = \frac{375}{x}$

18. _____

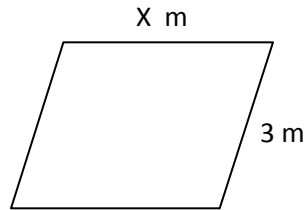
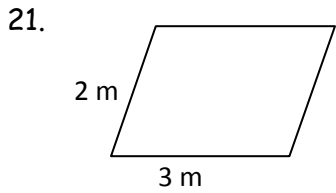
19. _____

Find the value of x in each pair of similar figures.



20. _____

21. _____



The map has a scale of 1 cm : 20 km. Find the actual distance.

22. 7 cm

23. 10 cm

22. _____

23. _____

24. 40 km

25. 80 km

24. _____

25. _____

Write the scale without units.

25. 1 in : 16 ft

27. 1 in : 45 yd

26. _____

27. _____

28. $1\text{ cm} : 3.5\text{ m}$ 29. $1\text{ mm} : 61\text{ cm}$ 28. _____

29. _____

Suppose you randomly choose a number between 1 and 19.

30. What is the probability of choosing an even number? 31. What are the odds in favor of choosing a prime number? 30. _____

31. _____

32. What is the probability of choosing a multiple of 3? 33. What are the odds in favor of choosing a multiple of 5? 32. _____

33. _____

Use the fundamental counting principle answer the following:

34. Choose turkey or ham with white, whole-wheat or rye bread. 35. Choose a sedan, truck, SUV or minivan in red, blue, or green 34. _____

35. _____

36. Choose a T-shirt, a button-down shirt, or a sweater, with jeans or khakis. 37. Choice of 3 salads, 4 main dishes, and 2 desserts. 36. _____

