Name: _____ Date: _____

Solving Proportions

Grade 7 • 30 questions • Part A: solve for x. Use a scale factor or cross-multiply

1. $\frac{x}{12} = \frac{27}{36}$ x = _____

2. $\frac{35}{x} = \frac{21}{24}$ x = _____

3. $\frac{12}{15} = \frac{x}{25}$ x = _____

4. $\frac{12}{15} = \frac{8}{x}$ x = _____

5. $\frac{x}{9} = \frac{4}{12}$ x = _____

6. $\frac{15}{x} = \frac{40}{24}$ x = _____

7. $\frac{12}{28} = \frac{x}{63}$ x = _____

8. $\frac{9}{21} = \frac{21}{x}$ x = _____

9. $\frac{x}{21} = \frac{18}{42}$ x = _____

10. $\frac{4}{x} = \frac{2}{6}$ x = _____

11. $\frac{15}{20} = \frac{x}{36}$ x = _____

12. $\frac{6}{21} = \frac{12}{x}$ x = _____

13. $\frac{x}{6} = \frac{4}{12}$ x = _____

14. $\frac{25}{x} = \frac{35}{21}$ x = _____

15. $\frac{4}{14} = \frac{x}{35}$ x = _____

16. $\frac{15}{12} = \frac{40}{x}$ x = _____

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Part B • Is it a proportion? Write yes or no • Part C: set up a proportion and solve

17. $\frac{25}{30} = \frac{20}{24}$ _____

18. $\frac{4}{20} = \frac{2}{12}$ _____

19. $\frac{6}{4} = \frac{9}{6}$ _____

20. $\frac{21}{12} = \frac{35}{22}$ _____

21. $\frac{16}{28} = \frac{8}{14}$ _____

22. $\frac{12}{15} = \frac{24}{32}$ _____

Part C • Set up a proportion and solve

23. 5 pencils cost $2. How much do 12 pencils cost?

Answer: _____

24. A recipe uses 3 eggs for 10 muffins. How many eggs for 25 muffins?

Answer: _____

25. 4 cm on a map is 10 km. How far is 14 cm?

Answer: _____

26. A car goes 150 miles on 6 gallons. How far on 10 gallons?

Answer: _____

27. 7 tickets cost $56. How many tickets can you buy with $96?

Answer: _____

28. A 6 ft person casts a 4 ft shadow. A tree casts a 12 ft shadow. How tall is the tree?

Answer: _____

29. Paint is mixed 2 cans blue to 5 cans white. How much white for 8 cans of blue?

Answer: _____

30. 12 is 30% of what number? Use 12/x = 30/100.

Answer: _____

Answer Key — Solving Proportions

1. 9
2. 40
3. 20
4. 10
5. 3
6. 9
7. 27
8. 49
9. 9
10. 12
11. 27
12. 42
13. 2
14. 15
15. 10
16. 32
17. yes
18. no
19. yes
20. no
21. yes
22. no
23. $4.80
24. 7.5
25. 35 km
26. 250 miles
27. 12
28. 18 ft
29. 20 cans
30. 40