

Practice 6-3 Proportions

HW #16

Choose a calculator, paper and pencil, or mental math. Which pairs of ratios form a proportion?

1. $\frac{12}{16}, \frac{30}{40}$ yes (480)
 2. $\frac{8}{12}, \frac{15}{21}$ NO (168, 180)
 3. $\frac{27}{21}, \frac{81}{56}$ NO (1521, 1701)
 4. $\frac{45}{24}, \frac{75}{40}$ yes (1500)
 5. $\frac{5}{9}, \frac{80}{117}$ NO (720, 595)
 6. $\frac{15}{25}, \frac{75}{125}$ yes (1875)

Choose a calculator, paper and pencil, or mental math. Find the value of n in each proportion.

7. $\frac{n}{14} = \frac{20}{35}$ 8
 8. $\frac{9}{6} = \frac{21}{n}$ 14
 9. $\frac{24}{n} = \frac{16}{10}$ 15
 10. $\frac{3}{4} = \frac{n}{10}$ 7.5
 11. $\frac{n}{4} = \frac{17}{3}$ 22.6
 12. $\frac{25}{n} = \frac{9}{8}$ 22.2

Choose A, B, or C.

13. A contractor estimates it will cost \$2,400 to build a deck to a customer's specifications. Which proportion would help you find how much it would cost to build five similar decks? _____

- A. $\frac{1}{5} = \frac{n}{\$2,400}$ B. $\frac{1}{\$2,400} = \frac{n}{5}$ C. $\frac{1}{\$2,400} = \frac{5}{n}$

$\frac{1}{5} = \frac{2400}{x}$

14. A recipe requires 3 c of flour to make 27 dinner rolls. Which of the proportions would help you find the flour needed to make 9 rolls? _____

- A. $\frac{3}{9} = \frac{n}{27}$ B. $\frac{3}{27} = \frac{9}{n}$ C. $\frac{27}{3} = \frac{9}{n}$

flour $\frac{3}{27} = \frac{x}{9}$
rolls

Choose a calculator, paper and pencil, or mental math.

15. Mandy runs 4 km in 18 min. She plans to run in a 15 km race. How long will it take her to complete the race? _____

$\frac{km}{min} \frac{4}{18} = \frac{15}{x}$
67.5 min.

16. Ken's new car can go 26 mi/gal of gas. The car's gasoline tank holds 14 gal. How far will he be able to go on a full tank? _____

$\frac{miles}{gal} \frac{26}{1} = \frac{x}{14}$
364 miles

17. Eleanor can complete two skirts in 15 days. How long will it take her to complete eight skirts? _____

$\frac{skirts}{days} \frac{2}{15} = \frac{8}{x}$
60 days

18. Three eggs are required to make two dozen muffins. How many eggs are needed to make 12 dozen muffins? _____

$\frac{eggs}{muffins} \frac{3}{2} = \frac{x}{12}$
18 eggs