

**Palomar College Math Placement Test Study Guide
Prealgebra**

Topic 7: Ratio and Proportion

1. What value of n solves the proportion: $\frac{9}{21} = \frac{n}{14}$
2. Solve the proportion: $\frac{35}{126} = \frac{10}{x}$
3. A car traveled at 55 miles per hour for 374 miles. How many hours did the car travel?
4. If 6 gallons of unleaded gasoline cost \$12.72, how much would 8 gallons cost?
5. Which is faster: 3 $\frac{1}{2}$ inches per second or 200 inches per minute?
6. A medication is given at a rate of 12.3 grams for every 50 pounds of bodyweight. How much should be given to 135 pound person?
7. On a map, 1 inch represents 8 miles. If the distance between two locations on the map is 7.5 inches, what is the actual distance between the two locations?
8. Write as a unit rate: 270 miles per 12 gallons
9. If 12 pencils cost 96¢, find the cost of 5 pencils.
10. If x pencils cost c cents, then give a general formula for the cost of y pencils, in cents.

Answers are on the next page.

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Answers:

1. $n = 6$
2. $x = 36$
3. The car traveled for 6.8 hours.
4. Eight gallons of gasoline cost \$16.96.
5. $3\frac{1}{2}$ inches per second is faster than 200 inches per minute.
6. 33.21 grams of medication should be given to a 135-pound person.
7. The distance between the two locations is 60 miles.
8. 22.5 miles per gallon
9. Five pencils cost 40¢.
10. $\frac{yc}{x}$