

Proportion Word Problems**Multiple Choice**

Identify the choice that best completes the statement or answers the question.

Solve the proportion.

1. $\frac{2}{10} = \frac{11}{x}$

- a. 55 b. 2.2 c. 110 d. 1.8

2. $\frac{x-8}{5} = \frac{2}{4}$

- a. $\frac{9}{2}$ b. $\frac{5}{2}$ c. $\frac{21}{2}$ d. 18

3. $\frac{w+14}{4w+6} = \frac{3}{4}$

- a. $\frac{8}{19}$ b. $\frac{15}{28}$ c. $\frac{4}{19}$ d. $\frac{2}{7}$

4. A van travels 220 miles on 10 gallons of gas. Write and solve a proportion to find how many gallons the van needs to travel 550 miles.

a. $\frac{220}{10} = \frac{550}{g}$; 31 gallons of gas b. $\frac{10}{220} = \frac{550}{g}$; 121 gallons of gas c. $\frac{10}{220} = \frac{550}{g}$; 115 gallons of gas

d. $\frac{220}{10} = \frac{550}{g}$; 25 gallons of gas

5. A package delivery company has determined that they can meet their schedules if they have 4 drivers for every 30 square miles of area they cover. If they want to offer service to a county of 75 square miles, how many drivers must they have?

- a. 12 drivers b. 10 drivers c. 15 drivers d. 9 drivers

Name: _____

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6. School guidelines require that there must be at least 2 chaperones for every 25 students going on a school trip. How many chaperones must there be for 80 students?
- a. 6 chaperones b. 40 chaperones c. 3 chaperones d. 7 chaperones

Write the ratio as a fraction in simplest form.

7. 24 to 20
- a. $\frac{1}{4}$ b. $\frac{6}{5}$ c. $\frac{24}{20}$ d. $\frac{5}{6}$

8. In the population of a particular country, the male-to-female ratio is 46 to 54. Write this ratio as a fraction in simplest form.
- a. $\frac{23}{27}$ b. $\frac{4}{5}$ c. $\frac{2}{3}$ d. $\frac{5}{6}$

Solve the proportion.

9. $\frac{4}{21} = \frac{x}{168}$
- a. 882 b. 8 c. 84 d. 32
10. $\frac{10}{a} = \frac{15}{30}$
- a. 2 b. 5 c. 10 d. 20
11. One hundred nautical miles equals about 185 kilometers. To the nearest kilometer, how far in kilometers is 290 nautical miles?
- a. 537 km b. 157 km c. 185 km d. 53,650 km
12. Write a proportion that can be used to find the cost of 10 notebooks if 3 notebooks cost \$1.98.
- a. $\frac{3}{10} = \frac{n}{\$1.98}$ b. $\frac{10}{\$1.98} = \frac{n}{3}$ c. $\frac{10}{3} = \frac{\$1.98}{n}$ d. $\frac{3}{\$1.98} = \frac{10}{n}$

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13. Find 78% of 380. Round to the nearest tenth of a percent if necessary.
a. 3.8 b. 29,640.0 c. 296.4 d. 487.2
14. What percent of 67 is 33? If necessary, round to the nearest tenth of a percent.
a. 203.0% b. 0.5% c. 49.3% d. 33.0%
15. Emma already has read 6 of 20 books on her summer reading list. What percent of the books on her list has she read already?
a. 23.1% b. 30.0% c. 333.3% d. 0.3%
16. Two U.S. states are not part of the continental United States. What percent of the fifty U.S. states are included in the continental United States?
a. 2% b. 13% c. 48% d. 96%
17. 20 is 50% of what number? If necessary, round to the nearest tenth.
a. 10.0 b. 1000.0 c. 40.0 d. 0.4
18. The Mogul Runners ski club planned a trip to Park City. Of the total number of members belonging, 11 signed up to go. If this is 25% of the club, how many total members does the ski club have?
a. 22 members b. 3 members c. 275 members d. 44 members
19. Martha paid \$42.40 for her sister's birthday present. This included 6% sales tax. What was the cost of the gift before tax?
a. \$40.00 b. \$44.94 c. \$25.44 d. \$2.40
20. In a survey, 480 people, or 75%, said they attended a movie at least once a month. How many people were surveyed?
a. 405 people b. 360 people c. 555 people d. 640 people
21. Find the percent of increase from 320 to 380. Round to the nearest tenth of a percent if necessary.
a. 18.8% b. 84.2% c. 15.8% d. 0.2%