Get out your homework and have it ready to check.

Classwork - Percent Proportion Word Problems

Find each number. Round to the nearest tenth if necessary.

1. What percent of 65 is 13?

$$\frac{13}{65} = \frac{x}{100}$$

$$x = \boxed{20\%}$$

2. $4 is what percent of $50?

$$\frac{4}{50} = \frac{x}{100} \quad x = \boxed{8\%}$$

3. What number is 35% of 22?

$$\frac{x}{22} = \frac{35}{100} \quad \boxed{x = 7.7}$$

4. What percent of 45 is 72?

$$\frac{72}{45} = \frac{x}{100}$$

$$x = \boxed{160\%}$$

5. 1% of what number is 7?

$$\frac{7}{x} = \frac{1}{100}$$

$$\boxed{x = 700}$$

6. 33 is 50% of what number?

$$\frac{33}{x} = \frac{50}{100}$$

$$\boxed{x = 66}$$

7. What number is 3% of 100?

$$\frac{x}{100} = \frac{3}{100}$$

$$\boxed{x = 3}$$

8. What percent of 200 is 0.5?

$$\frac{0.5}{200} = \frac{x}{100}$$

$$x = \boxed{0.25\%}$$

9. What number is 0.4% of 20?

$$\frac{x}{20} = \frac{0.4}{100}$$

$$\boxed{x = 0.08}$$

10. What number is 6.1% of 60?

$$\frac{x}{60} = \frac{6.1}{100}$$

$$\boxed{x = 3.66}$$

11. 10.4% of what number is 13?

$$\frac{13}{x} = \frac{10.4}{100}$$

$$\boxed{x = 125}$$

12. 55 is 40% of what number?

$$\frac{55}{x} = \frac{40}{100}$$

$$\boxed{x = 137.5}$$

13. **ALLOWANCE** Mallory has \$3 in her wallet. If this is 10% of her monthly allowance, what is her monthly allowance?

$$\frac{3}{x} = \frac{10}{100} \qquad \boxed{x = \$30}$$

14. **WEDDING** Of the 125 guests invited to a wedding, 104 attended the wedding. What percent of the invited guests attended the wedding?

$$\frac{104}{125} = \frac{x}{100} \qquad x = \boxed{83.2\%}$$

15. **CAMERA** The memory card on Melcher's digital camera can hold about 430 pictures. Melcher used 18% of the memory card while taking pictures at a family reunion. About how many pictures did Melcher take at the family reunion? Round to the nearest whole number.

$$\frac{x}{430} = \frac{18}{100}$$

$$100x = 7740$$
$$\div 100$$
$$x = 77.4 \approx \boxed{77 \text{ pictures}}$$

16. OCEANS Use the table shown.

Ocean	Area (square miles)
Pacific	64 million
Atlantic	32 million
Indian	25 million

a. The area of the Indian Ocean is what percent of the area of the Pacific Ocean? Round to the nearest whole percent.

$$\frac{25}{64} = \frac{x}{100}$$

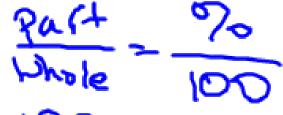$$\frac{2500 = 64x}{64}$$
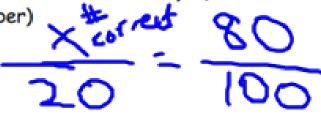
$$39.1 = x \quad \boxed{39\%}$$

b. If the area of the Arctic Ocean is 16% of the area of the Atlantic Ocean, what is the area of the Arctic Ocean? Round to the nearest whole million.

$$\frac{x}{32} = \frac{16}{100}$$

$$\frac{100x = 512}{100}$$

$$\boxed{x = 5.12 \approx 5 \text{ million mi}^2}$$

1) A student earned a grade of 80% on a math test that had 20 problems. How many problems on this test did the student answer correctly? (round to the nearest whole number)
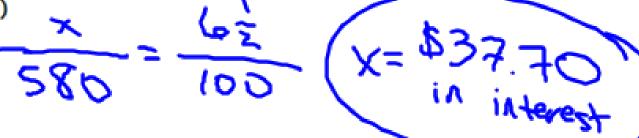
$$\frac{Part}{Whole} = \frac{\%}{100}$$

$$\frac{x \#correct}{20} = \frac{80}{100}$$

$$1600 = 100x$$
$$\div 100$$

$$\boxed{16 \; correct = x}$$

2) There are 36 carpenters in a crew. On a certain day, 29 were present. What percent showed up for work? (round to the nearest tenth)

$$\frac{29}{36} = \frac{x}{100}$$

$$36x = 2900$$
$$\div 36$$

$$\boxed{x = 80.5\%}$$

3) A metal bar weighs 8.15 ounces. 93% of the bar is silver. How many ounces of silver are in the bar? (round to the nearest thousandth)

$$\frac{x}{8.15} = \frac{93}{100}$$

$$x = 7.5795 \approx \boxed{7.58 \; ounces}$$

4) A woman put $580 into a savings account for one year. The rate of interest on the account was $6\frac{1}{2}$%. How much was the interest for the year in dollars and cents? (Round to the nearest cent)

$$\frac{x}{580} = \frac{6\frac{1}{2}}{100}$$

$x = \$37.70$ in interest

5) A student answered 86 problems on a test correctly and received a grade 98%. How many problems were on the test, if all the problems were worth the same number of points? (Round to the nearest whole number)

$$\frac{86}{x} = \frac{98}{100}$$

$98x = 8600$
$\div 98$
$x = 87.75$

88 total problems

6) Manuel found a wrecked Trans-Am that he could fix. He bought the car for 65% of the original price of $7200. What did he pay for the car? (Round to nearest dollar)

$$\frac{x}{7200} = \frac{65}{100}$$

$x = \$4680$

7) Pamela bought an electric drill at 85% of the regular price. She paid $32.89 for the drill. What was the regular price? (Round to the nearest cent)

$$\frac{32.89}{x} = \frac{85}{100}$$

$$85x = 3289$$
$$\div 85$$
$$x = 38.694\ldots = \boxed{\$38.69}$$

8) A crew is made up of 8 men; the rest are women. $66\frac{2}{3}\%$ of the crew are men. How many people are in the crew?

$$\frac{8}{x} = \frac{66\frac{2}{3}}{100}$$

$$800 = 66\frac{2}{3}x$$
$$\div 66\frac{2}{3}$$

$$\boxed{x = 12 \text{ total people}}$$

9) Ben earns $12,800 a year. About 15% is taken out for taxes. How much is taken out for taxes?

$$\frac{x}{12800} = \frac{15}{100}$$

$$\boxed{x = \$192}$$

10) At a sale, shirts were sold for $15 each. This price was 80% of their original price. What was the original price?

Read Carefully

11) There are 32 students in a class. Nine of those students are women. What percent are men? (round to the nearest tenth)

12) The Royals softball team played 75 games and won 55 of them. What percent of the games did they lose? (round to the nearest tenth)