

Homework # 34

1) What number is 45% of 90?

$$\frac{x}{90} = \frac{45}{100}$$

$$\frac{100x}{100} = \frac{4050}{100}$$

$$x = 40.5$$

2) 27 is 30% of what number?

$$\frac{27}{x} = \frac{30}{100}$$

$$\frac{30x}{30} = \frac{2700}{30}$$

$$x = 90$$

3) 21 is what percent of 60?

$$\frac{21}{60} = \frac{x}{100}$$

$$\frac{60x}{60} = \frac{2100}{60}$$

$$x = 35\%$$

4) 40% of the students on a field trip love the museum. If there are 20 students on the field trip, how many love the museum?

Percent: 40Part: xWhole: 20

$$\frac{x}{20} = \frac{40}{100}$$

$$\frac{100x}{100} = \frac{800}{100}$$

$x = 8$ students love the museum

5) Curtis threw 15 darts at a dartboard. 40% of his darts hit the bull's-eye. How many darts hit the bull's-eye?

Percent: 40Part: xWhole: 15

$$\frac{x}{15} = \frac{40}{100}$$

$$\frac{100x}{100} = \frac{600}{100}$$

$x = 6$ darts hit the bull's-eye.

6) Matthew scored a total of 168 points in basketball this season. He scored 147 of those points in the regular season, and the rest were scored in his only playoff game. What percent of his total points did he score in the playoff game?

Total Points 168Points in Regular season 147Points in Playoff game 21

168

-147

21

Percent: xPart: 21Whole: 168

$$\frac{21}{168} = \frac{x}{100}$$

$$\frac{168x}{168} = \frac{2100}{168}$$

$x = 12.5\%$

7) A furnace used 40% of the fuel in its tank in the month of March. At the beginning of March, there were 240 gallons of fuel in the tank. How much fuel (in gallons) was left at the end of March?

40%
part = x
whole = 240

$$\frac{x}{240} = \frac{40}{100}$$

$$\frac{100x}{100} = \frac{9600}{100}$$

x = 96 gallons gas used

$$\begin{array}{r} 240 \\ - 96 \\ \hline \end{array}$$

144 gallons left

8) In Lewis County, there were 2,277 student athletes signed up to compete in spring sports in 2014. 8% of the athletes were unable to compete due to injury. How many students were able to compete?

2,277 = whole
8% unable

$$\frac{x}{2277} = \frac{92}{100}$$

92% able
x = part

$$\frac{100x}{100} = \frac{209484}{100}$$

x = 2094.84

2095 students were able to compete.

9) Brad put 10 crickets in his pet lizard's cage. After one day, Brad's lizard had eaten 20% of the crickets he had put in the cage. By the end of the next day, the lizard had eaten 25% of the remaining crickets. How many crickets were left in the cage at the end of the second day?

(A) $\frac{x}{10} = \frac{20}{100}$

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

x = 2 crickets eaten

(B) $\begin{array}{r} 10 \\ - 2 \\ \hline 8 \end{array}$ crickets remaining

(C) $\frac{x}{8} = \frac{25}{100}$

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

x = 2 crickets eaten

(D) $\begin{array}{r} 8 \\ - 2 \\ \hline \end{array}$

6 crickets

remaining.