

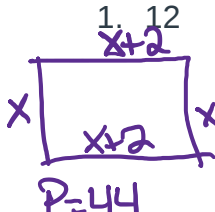
Equation Word Problems Assignment (Introduction, Solving Equations)

See below for the ANSWERS

1. The perimeter of a rectangle is 44. Its length and width are two consecutive even integers. What is the length of the rectangle?
2. There are 3 consecutive integers. The third integer subtracted from the sum of the first two integers equals 9. What is the middle integer?
3. The perimeter of a triangle is 43 cm. The largest side is 4 times the smallest side. The other side is 8 more than twice the smallest side. What is the length of the smallest side?

Answers:

1. 12



$$44 = x + x + x + 2 + x + 2$$

$$44 = 4x + 4$$

$$\begin{array}{r} -4 \\ 40 = 4x \\ \hline x = 10 \end{array}$$

$$L = x + 2$$

$$L = 10 + 2 = \boxed{12}$$

2. 11



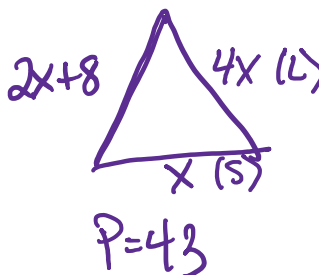
$$(x + x + 1) - (x + 2) = 9$$

$$2x + 1 - x - 2 = 9$$

$$\begin{array}{r} x - 1 = 9 \\ +1 \quad +1 \\ \hline x = 10 \text{ (first integer)} \end{array}$$

$$\text{middle} = x + 1 = 10 + 1 = \boxed{11}$$

3. 5



$$43 = x + 4x + 2x + 8$$

$$43 = 7x + 8$$

$$\begin{array}{r} -8 \\ 35 = 7x \\ \hline x = 5 \end{array}$$

$$\boxed{x = 5} \text{ Smallest side}$$