

Examples of consecutive integer problems:

- 1) Find three consecutive integers whose sum is 87.

Let $X = 1^{\text{st}}$ integer
 $X+1 = 2^{\text{nd}}$ integer
 $X+2 = 3^{\text{rd}}$ integer

$(28, 29, 30)$

$$\begin{array}{r} X + X + 1 + X + 2 = 87 \\ 3X + 3 = 87 \\ -3 \quad -3 \\ \hline 3X = 84 \\ \frac{3}{3} \quad \frac{3}{3} \\ X = 28 \end{array}$$

- 2) Find three consecutive even integers such that the largest is three times the smallest.

Let $X = 1^{\text{st}}$ even
 $X+2 = 2^{\text{nd}}$ even
 $X+4 = 3^{\text{rd}}$ even

$(2, 4, 6)$

$$\begin{array}{r} X + 4 = 3X \\ -X \quad -X \\ \hline +4 = 2X \\ \frac{4}{2} \quad \frac{2}{2} \\ 2 = X \end{array}$$

- 3) Four consecutive odd integers have a sum of 64. Find the integers.

Let $X = 1^{\text{st}}$ odd
 $X+2 = 2^{\text{nd}}$ odd
 $X+4 = 3^{\text{rd}}$ odd
 $X+6 = 4^{\text{th}}$ odd

$$\begin{array}{r} X + X + 2 + X + 4 + X + 6 = 64 \\ 4X + 12 = 64 \\ -12 \quad -12 \\ \hline 4X = 52 \\ \frac{4}{4} \quad \frac{4}{4} \\ X = 13 \end{array}$$

$(13, 15, 17, 19)$

150.

?

39.

?

279.

?

162.

?

358.

?

