

Consecutive Integer Problems - Guided Lesson Explanation**Explanation#1**

Let x be the first of these two consecutive integers. Then the second is $x+1$.
Since the sum of two consecutive integers $x, x+1$.

$$x + x + 1 = 65$$

$$2x + 1 = 65$$

$$2x = 65 - 1$$

$$x = \frac{64}{2}$$

$$x = 32$$

First even integer number is 32. Second is $32+1 = 33$.

So, the answer is: 32, 33.

Explanation#2

3 consecutive integers can be represented with $x, x+1$ and $x+2$.

Next, we need an equation.

So since x is the smallest, and $x+2$ is the largest, let's just solve for x to get x , which we can derive the others after getting.

So $3x = x + 2 + 18$ (because 3 times the smallest is 18 bigger than the larger).

Which simplifies to

$$3x = x + 20$$

$$2x = 20$$

$$x = 10$$

To verify, $10 \times 3 = 30$

$$30 - 18 = 12$$

So, the answer are 10, 11 and 12.



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Explanation#3

Let x be the first of these three consecutive even integers. Then the second is $x+2$.

Since the sum of these three consecutive even integers x , $x+2$.

$$x + x+2 = 86$$

$$2x + 2 = 86$$

$$2x = 86 - 2$$

$$X = \frac{84}{2}$$

$$X = 42$$

First even integer number is 42. Second is $42+2 = 44$.

So, the answer is: 42, 44.

