type 3: Finding Consecutive Numbers

- *What does consecutive mean?* in order
- *Give examples of the following:*

consecutive numbers $x, x+1, x+2$	x 7, 8, 9, 10. . . .
consecutive even numbers $x, x+2, x+4$	18, 20, 22, ...
consecutive odd numbers	3, 5, 7 . . . .

10. The sum of two consecutive numbers is 123. Find the numbers.

x = 1st #

$x+1$ = 2nd #

$x + x + 1 = 123$

$2x + 1 = 123$

$-1 \quad -1$

$\frac{2x}{2} = \frac{122}{2}$

$x = 61$

61, 62

11. The sum of two consecutive numbers is 85, find the numbers.

12. Find two consecutive **even** numbers whose sum is 54.

$X = 1^{st}\#$

$X+2 = 2^{nd}\#$

$X + X + 2 = 54$

$2X + 2 = 54$

$-2 \quad -2$

$\frac{2X}{2} = \frac{52}{2}$

$X = 26$

26, 28

13. The sum of two consecutive **odd** numbers is 128. Find the numbers.

$X = 1^{st}\#$

$X+2 = 2^{nd}\#$

$X + X + 2 = 128$

$2X + 2 = 128$

$-2 \quad -2$

$\frac{2X}{2} = \frac{126}{2}$

$X = 63$

63, 65

$X = 1^{st}\#$

$X+2 = 2^{nd}\#$

$X+4 = 3^{rd}\#$

$X+X+2+X+4=138$

$3X+6=138$

$-6 \quad -6$

$\frac{3X}{3} = \frac{132}{3}$

$X = 44$

44, 46, 48

$X = 1^{st}\#$

$X+2 = 2^{nd}\#$

$X+4 = 3^{rd}\#$

$X+X+2+X+4=57$

$3X+6=57$

$-6 \quad -6$

$\frac{3X}{3} = \frac{51}{3}$

$X=17$

17, 19, 21