

1.2 Solving Linear Equations

Remember...

Parenthesis

Exponents

Multiply

Divide

Add

Subtract

* solving for x
is the opposite
of PEMDAS!
UNDO EVERYTHING

Ex 1: Solve for x: $3x + 4 = 16$ *isolate x

$$\frac{3x}{3} = \frac{12}{3}$$

$$x = 4$$

Ex 2: Solve for x: $2(3x + 7) + 5 = 17$

$$2(3x + 7) + 5 = 17$$

$$6x + 14 + 5 = 17$$

$$6x + 19 = 17$$

$$\frac{6x}{6} = \frac{-2}{6}$$

$$x = -\frac{2}{6} = \boxed{-\frac{1}{3}}$$

$$2(3x + 7) + 5 = 17$$

$$\frac{2(3x + 7)}{2} = \frac{12}{2}$$

$$3x + 7 = 6$$

$$\frac{3x}{3} = \frac{-1}{3}$$

$$x = \boxed{-\frac{1}{3}}$$

yt] Solve each for x:

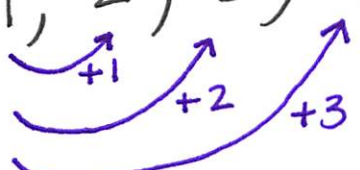
a) $4(x+3)+2=18$

b) $\frac{2x+4}{3} = 2$

↖ #s next to each other

Solving Consecutive Integer Problems

$1, 2, 3, 4 \Rightarrow x, (x+1), (x+2), (x+3)...$



Ex 1: The sum of 3 consecutive integers is 132. What are the integers?

$x + (x+1) + (x+2) = 132$

1st Term 2nd term 3rd Term combine like terms

$3x + 3 = 132$
-3 -3

$\frac{3x}{3} = \frac{129}{3}$

$x = 43$

$\boxed{43, 44, 45}$

yt] The sum of 4 consecutive integers is 134. What are the integers?

$x + (x+1) + (x+2) + (x+3) = 134$

$4x + 6 = 134$
-6 -6

$\frac{4x}{4} = \frac{128}{4}$

$x = 32$

$\boxed{32, 33, 34, 35}$