Name: Key Class: _____

Practice - Linear Equations 3

Showing both methods... stick with what works for you!

Solve each of the following.

1) $4(x-3)=20$

$4x-12=20$

$4x=20+12$

$\frac{4x}{4}=\frac{32}{4}$

$x=8$

2) $-6(x+5)=12$

$-6x-30=12$

$-6x=12+30$

$\frac{-6x}{-6}=\frac{42}{-6}$

$x=-7$

3) $\frac{9}{3}=\frac{3(2n-7)}{3}$

$3=2n-7$

$3+7=2n$

$\frac{10}{2}=\frac{2n}{2}$

$5=n$

4) $\frac{-36}{6}=\frac{6(x-2)}{6}$

$-6=x-2$

$-6+2=x$

$-4=x$

5) $-7(x+8)=-14$

$-7x-56=-14$

$-7x=-14+56$

$\frac{-7x}{-7}=\frac{42}{-7}$

$x=-6$

6) $-2=-(2n-8)$

$-2=-2n+8$

$-2-8=-2n$

$\frac{-10}{-2}=\frac{-2n}{-2}$

$5=n$

7) $\frac{24}{6}=\frac{6(-x-3)}{6}$

$4=-x-3$

$4+3=-x$

$\frac{7}{-1}=\frac{-x}{-1}$

$-7=x$

8) $\frac{3(-6n-5)}{3}=\frac{75}{3}$

$-6n-5=25$

$-6n=25+5$

$\frac{-6n}{-6}=\frac{30}{-6}$

$n=-5$

Review of Linear Equations:   

Outcomes: PR2 - Model and solve problems involving linear equations

Example 2 - Involving Division

Solve each of the following:

a) $\frac{p}{2} - 1 = 18$

$\frac{p}{2} = 18 + 1$

$2 \cdot \frac{p}{2} = 19 \cdot 2$

$p = 38$

Check / Verify

$\frac{p}{2} - 1 = 18$

$\frac{38}{2} - 1 = 18$

$19 - 1 = 18$

$18 = 18$ ✓

b) $\frac{-x}{12} - 6 = 4$

$\frac{-x}{12} = 4 + 6$

$12 \cdot \frac{-x}{12} = 10 \cdot 12$

$-1x = 120$

$\frac{-1x}{-1} = \frac{120}{-1}$

$x = -120$

c) $9 = 7 + \frac{x}{-4}$

$9 - 7 = \frac{x}{-4}$

$-4 \cdot 2 = \frac{x}{-4} \cdot -4$

$-8 = x$

Example 1

Example 2

STOP	Complete the following: **Practice - Linear Equations 2A (odd)**s **Practice - Linear Equations 2B (odds)** Check your solutions using the key provided.

Outcomes: PR2 - Model and solve problems involving linear equations