Name_____

Solving Multi-Step Equations

Date_____ Period____

Solve each equation.

1) $4n - 2n = 4$

2) $-12 = 2 + 5v + 2v$

3) $3 = x + 3 - 5x$

4) $x + 3 - 3 = -6$

5) $-12 = 3 - 2k - 3k$

6) $-1 = -3r + 2r$

7) $6 = -3(x + 2)$

8) $-3(4r - 8) = -36$

9) $24 = 6(-x - 3)$

10) $75 = 3(-6n - 5)$

11) $-3(1+6r)=14-r$

12) $6(6v+6)-5=1+6v$

13) $-4k+2(5k-6)=-3k-39$

14) $-16+5n=-7(-6+8n)+3$

15) $10p+9-11-p=-2(2p+4)-3(2p-2)$

16) $-10n+3(8+8n)=-6(n-4)$

17) $10(x+3)-(-9x-4)=x-5+3$

18) $12(2k+11)=12(2k+12)$

19) $-12(x-12)=-9(1+7x)$

20) $-11+10(p+10)=4-5(2p+11)$

Critical thinking question:

21) Explain two ways you could solve $20=5(-3+x)$

Name_____

Solving Multi-Step Equations

Date_____ Period____

Solve each equation.

1) $4n - 2n = 4$

{2}

2) $-12 = 2 + 5v + 2v$

{–2}

3) $3 = x + 3 - 5x$

{0}

4) $x + 3 - 3 = -6$

{–6}

5) $-12 = 3 - 2k - 3k$

{3}

6) $-1 = -3r + 2r$

{1}

7) $6 = -3(x + 2)$

{–4}

8) $-3(4r - 8) = -36$

{5}

9) $24 = 6(-x - 3)$

{–7}

10) $75 = 3(-6n - 5)$

{–5}

11) $-3(1+6r)=14-r$

{–1}

12) $6(6v+6)-5=1+6v$

{–1}

13) $-4k+2(5k-6)=-3k-39$

{–3}

14) $-16+5n=-7(-6+8n)+3$

{1}

15) $10p+9-11-p=-2(2p+4)-3(2p-2)$

{0}

16) $-10n+3(8+8n)=-6(n-4)$

{0}

17) $10(x+3)-(-9x-4)=x-5+3$

{–2}

18) $12(2k+11)=12(2k+12)$

No solution.

19) $-12(x-12)=-9(1+7x)$

{–3}

20) $-11+10(p+10)=4-5(2p+11)$

{–7}

Critical thinking question:

21) Explain two ways you could solve $20=5(-3+x)$

(1) Divide by 5 first, or (2) Distribute the 5 first.