

## Algebra Practice

### 1. Solve for x.

a)  $2x+3=-1$

$$2x = -1-3$$

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

$$x = -2$$

b)  $4(x-1)=8$

$$4x-4=8$$

$$4x = 8+4$$

$$\frac{4x}{4} = \frac{12}{4}$$

$$x = 3$$

c)  $-2x+1=6x-39$

$$-2x-6x = -39-1$$

$$\frac{-8x}{-8} = \frac{-40}{-8}$$

$$x = 5$$

d)  $2(x-3)+2(x+1)=0$

$$2x-6+2x+2=0$$

$$2x+2x = 0+6-2$$

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

$$x = 1$$

e)  $4(x+2)=3(x-1)+13$

$$4x+8 = 3x-3+13$$

$$4x-3x = -3+13-8$$

$$x = 2$$

f)  $8x-3+2x=-43$

$$8x+2x = -43+3$$

$$\frac{10x}{10} = \frac{-40}{10}$$

$$x = -4$$

g)  $4x-3=9$

$$4x = 9+3$$

$$\frac{4x}{4} = \frac{12}{4}$$

$$x = 3$$

h)  $5x-25=5$

$$5x = 5+25$$

$$\frac{5x}{5} = \frac{30}{5}$$

$$x = 6$$

i)  $-(x+3)=-4$

$$-x-3 = -4$$

$$-x = -4+3$$

$$-x = -1$$

$$x = 1$$

j)  $2x+(4+3x)=24$

$$2x+4+3x = 24$$

$$5x = 24-4$$

$$5x = 20$$

$$x = 4$$

k)  $3(x-2)-(x+8)=10$

$$3x-6-x-8=10$$

$$3x-x = 10+6+8$$

$$2x = 24$$

$$x = 12$$

l)  $2(x+2)-(x+1)=x+3$

$$2x+4-x+1 = x+3$$

$$x+3 = x+3$$

X