

## Equivalent Expressions Worksheets

1. Simplify each expression. Verify that your expression is equivalent to the one given by evaluating each expression using  $x = 5$ .

a)  $3x + (2 - 4x)$

b)  $3x + (-2 + 4x)$

c)  $-3x + (2 + 4x)$

d)  $3x + (-2 - 4x)$

e)  $3x - (2 + 4x)$

f)  $3x - (-2 + 4x)$

## Equivalent Expressions Worksheets

1. Simplify each expression. Verify that your expression is equivalent to the one given by evaluating each expression using  $x = 5$ .

a)  $3x + (2 - 4x)$

$$-x + 2$$

$$-5 + 2$$

$$-3$$

$$3(5) + (2 - 4(5))$$

$$15 + (2 + (-20))$$

$$15 + (-18)$$

$$-3$$

b)  $3x + (-2 + 4x)$

$$7x - 2$$

$$7(5) - 2$$

$$35 - 2$$

$$33$$

$$3(5) + (-2 + 4(5))$$

$$15 + (-2 + 20)$$

$$15 + 18$$

$$33$$

c)  $-3x + (2 + 4x)$

$$x + 2$$

$$5 + 2$$

$$7$$

$$-3(5) + (2 + 4(5))$$

$$-15 + (2 + 20)$$

$$-15 + 22$$

$$7$$

d)  $3x + (-2 - 4x)$

$$-x - 2$$

$$-5 - 2$$

$$-7$$

$$3(5) + (-2 - 4(5))$$

$$15 + (-2 + (-4(5)))$$

$$15 + (-2 + (-20))$$

$$15 + (-22)$$

$$-7$$

e)  $3x - (2 + 4x)$

$$-x - 2$$

$$-5 - 2$$

$$-7$$

$$3(5) - (2 + 4(5))$$

$$15 - (2 + 20)$$

$$15 - 22$$

$$15 + (-22)$$

$$-7$$

f)  $3x - (-2 + 4x)$

$$-x + 2$$

$$-5 + 2$$

$$-3$$

$$3(5) - (-2 + 4(5))$$

$$15 - (-2 + 20)$$

$$15 - (18)$$

$$15 + (-18)$$

$$-3$$