

Math Sheet

Name _____ Score _____ / 10 Teacher _____ Date _____

Evaluating Two-Variable Expressions

Substitute the given value or values and evaluate exactly.

1. Evaluate: Use $k = 6$, $f = 8$.

$$-9k + 9f$$

6. Evaluate: Use $d = 7$, $g = 9$.

$$-8g + \frac{-56}{d}$$

2. Evaluate: Use $p = 5$, $y = 3$.

$$8p + 7 - 9y$$

7. Evaluate: Use $h = 14$, $d = 8$.

$$4d - 3 - \frac{h}{2}$$

3. Evaluate: Use $z = 5$, $m = 5$.

$$-8 + 7 + 3z + 9m$$

8. Evaluate: Use $p = 5$, $x = 5$.

$$8p + 5x$$

4. Evaluate: Use $y = 7$, $n = 4$.

$$-3(-4y + 8n)$$

9. Evaluate: Use $y = 3$, $r = 7$.

$$3y + 3 - 2r$$

5. Evaluate: Use $w = 8$, $s = 2$.

$$-4(-3w - 9s) - 5$$

10. Evaluate: Use $y = 2$, $f = 6$.

$$5 - 8f - 3y + 9$$

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Evaluating Two-Variable Expressions

Answer key

Substitute the given value or values and evaluate exactly.

1. **Evaluate: Use $k = 6$, $f = 8$.**

$$-9k + 9f$$

$$-9k + 9f = -9 \times 6 + 9 \times 8$$

Substitute the given values.

$$-9 \times 6 + 9 \times 8 = 18$$

Evaluate with exact arithmetic.

2. **Evaluate: Use $p = 5$, $y = 3$.**

$$8p + 7 - 9y$$

$$8p + 7 - 9y = 8 \times 5 + 7 - 9 \times 3$$

Substitute the given values.

$$8 \times 5 + 7 - 9 \times 3 = 20$$

Evaluate with exact arithmetic.

3. **Evaluate: Use $z = 5$, $m = 5$.**

$$-8 + 7 + 3z + 9m$$

$$-8 + 7 + 3z + 9m = -8 + 7 + 3 \times 5 + 9 \times 5$$

Substitute the given values.

$$-8 + 7 + 3 \times 5 + 9 \times 5 = 59$$

Evaluate with exact arithmetic.

4. **Evaluate: Use $y = 7$, $n = 4$.**

$$-3(-4y + 8n)$$

$$-3(-4y + 8n) = -3(-4 \times 7 + 8 \times 4)$$

Substitute the given values.

$$-3(-4 \times 7 + 8 \times 4) = -12$$

Evaluate with exact arithmetic.

5. **Evaluate: Use $w = 8$, $s = 2$.**

$$-4(-3w - 9s) - 5$$

$$-4(-3w - 9s) - 5 = -4(-3 \times 8 - 9 \times 2) - 5$$

Substitute the given values.

$$-4(-3 \times 8 - 9 \times 2) - 5 = 163$$

Evaluate with exact arithmetic.

6. **Evaluate: Use $d = 7$, $g = 9$.**

$$-8g + \frac{-56}{d}$$

$$-8g + \frac{-56}{d} = -8 \times 9 + \frac{-56}{7}$$

Substitute the given values.

$$-8 \times 9 + \frac{-56}{7} = -80$$

Evaluate with exact arithmetic.

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Answer key

Substitute the given value or values and evaluate exactly.

7. **Evaluate: Use $h = 14$, $d = 8$.**

$$4d - 3 - \frac{h}{2}$$

$$4d - 3 - \frac{h}{2} = 4 \times 8 - 3 - \frac{14}{2}$$

Substitute the given values.

$$4 \times 8 - 3 - \frac{14}{2} = 22$$

Evaluate with exact arithmetic.

8. **Evaluate: Use $p = 5$, $x = 5$.**

$$8p + 5x$$

$$8p + 5x = 8 \times 5 + 5 \times 5$$

Substitute the given values.

$$8 \times 5 + 5 \times 5 = 65$$

Evaluate with exact arithmetic.

9. **Evaluate: Use $y = 3$, $r = 7$.**

$$3y + 3 - 2r$$

$$3y + 3 - 2r = 3 \times 3 + 3 - 2 \times 7$$

Substitute the given values.

$$3 \times 3 + 3 - 2 \times 7 = -2$$

Evaluate with exact arithmetic.

10. **Evaluate: Use $y = 2$, $f = 6$.**

$$5 - 8f - 3y + 9$$

$$5 - 8f - 3y + 9 = 5 - 8 \times 6 - 3 \times 2 + 9$$

Substitute the given values.

$$5 - 8 \times 6 - 3 \times 2 + 9 = -40$$

Evaluate with exact arithmetic.