

Name: _____

Complete as many of the following problems as you can with your table. Turn this in at the end of class. You do not have to go in order. If you finish early, you may leave early.

1. Evaluate each exponential expression.

(a) $6^2 \cdot 2^4$

(b) -3^3

(c) $(-5)^2$

2. Evaluate each expression.

(a) $\sqrt{25} - \sqrt{4}$

(b) $\sqrt{25 - 16}$

(c) $\sqrt{(-6)^2}$

(d) $\sqrt{\frac{100}{64}}$

3. Use the order of operations to simplify each expression:

(a) $8 - 3[-2(2 - 5) - 4(8 - 6)]$

(c) $4^2 + (8 - 2)^2 - 4$

(b) $\frac{2(-2) - 4(-3)}{5 - 8}$

(d) $2 \cdot 3^2 - (12 - 14)$

4. Evaluate the given algebraic expression using the given x value:

(a) $9 + 2x$; $x = 5$

(c) $7 + 8(x - 3)^2$; $x = 7$

(b) $x^2 + 2x$; $x = 2$

(d) $\frac{3(x + 2)}{15x - 30}$; $x = 3$

5. Evaluate the given algebraic expression using the given values of x and y :

(a) $6x - y$; $x = 3$ and $y = 8$

(c) $\frac{2x + 3y}{x + 1}$; $x = -2$ and $y = 4$

(b) $x^2 - 3(x - y)$; $x = 8$ and $y = 2$

6. Evaluate the algebraic expression for $x = 2$ and $y = -5$

(a) $|x + y|$

(c) $|x| - |y|$

(b) $|x - y|$

(d) $\frac{|x|}{x} + \frac{|y|}{y}$