Name:_____

Date:_____

Practice Test – Unit 1

Rules:

- You may use a calculator.
- You must work in pencil.
- You must show your work.

Directions: Please simplify the following with your calculator. Draw the buttons that you need to press so that you only hit the equals sign once to get your answer.

1. 2^{25} =_____

2. $27^{\frac{1}{3}}$ =_____

3. $\frac{12^2 - 44}{2}$ =_____

4. $\sqrt{225}$ =_____

5. $-41.75 - (-6.235)$ =_____

6. $\frac{1}{3}\left(\frac{2}{3} - \frac{5}{7}\right)^2 + \frac{6}{5}$ _____

Directions: Please write a mathematical expression for the following.

1. The opposite of five squared. _____
2. Negative five to the second power. _____
3. The opposite of negative three squared. _____
4. The opposite of the opposite of twelve squared. _____
5. The opposite of nine. _____
6. The opposite of the quantity nine plus six. _____

Directions: Please simplify the following.

1. -3^2 _____

2. $(-3)^2$ _____

3. $-(3)^2$ _____

4. $-(-3)^2$ _____

5. $-(-3^2)$ _____

Directions: Please simplify the following. You may use your calculator but show each line of your work. Write your answer on the line below.

1. $7 - 3(4)$ _____

2. $2 - 3(4) - 3 + 8 \div 4$ _____

3. $5 + 3(2 - 6)$ _____

4. $4^2 - 3(6 - 2)^2$ _____

5. $-2^2 + 3(4 - 5)^4$ _____

6. $\dfrac{(4 - 3(2))^2 - 4}{2} + 3$ _____

7. $\dfrac{-(8 - 3)(12 + 2)}{6 - 2}$ _____

Directions: Please evaluate the following expressions for the given value of the variable. Show all of your work. Please write your answer on the line.

1. $a + b \quad a = -2 \quad b = -9$ _____

2. $4a - 3b \quad a = -6 \quad b = -8$ _____

3. $x(x - y + 6) \quad x = 4 \quad y = 2$ _____

4. $\frac{a - b}{b - a} \quad a = 4 \quad b = 6$ _____

5. $-x^2 \quad x = -2$ _____

6. $x^2 \quad x = -3$ _____

7. $a - b \quad a = -2 \quad b = -4$ _____