

Practice 8.2

Name(s) \_\_\_\_\_

Evaluate.

1)  $10^5$

2)  $\left(\frac{1}{5}\right)^2$

Simplify the expression.

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

4)  $\left(\frac{5}{7}\right)^2 + 1^2$

5)  $\frac{5}{4} \cdot \frac{1}{3} + \frac{4}{5} \cdot \frac{1}{2}$

6)  $|-17| + |24 + 22|$

7)  $\frac{20 + (4)(3)}{2[16 \div (4 + 4)]}$

Evaluate the expression when  $x = 2$ ,  $y = 1$ , and  $z = 4$ .

8)  $\frac{y}{3x}$

9)  $|7z - 4y|$

Evaluate the expression for the given replacement values.

10)  $\frac{8x - 7y}{7}$   $x = 10, y = 5$

Decide whether the given number is a solution of the given equation.

11)  $7x + 9 = 53$ ; 6

12)  $\frac{1}{5}x = 6$ ; 30

Write the phrase as an algebraic expression. Let  $x$  represent the unknown number.

13) Four subtracted from a number

14) The ratio of a number and 9

15) Twice a number, increased by 78

16) The difference of ten and one is greater than six.

17) Three subtracted from a number is zero.

18) Eleven subtracted from eight times a number is 125.

19) Ten added to eight times a number is 38.

Answer Key

Testname: M050\_8.2

1) 100,000

2)  $\frac{1}{25}$

3) 132

4)  $\frac{25}{49}$

5)  $\frac{49}{60}$

6) 63

7) 8

8)  $\frac{1}{6}$

9) 24

10)  $\frac{45}{7}$

11) not a solution

12) solution

13)  $x - 4$

14)  $\frac{x}{9}$

15)  $2x + 78$

16)  $10 - 1 > 6$

17)  $x - 3 = 0$

18)  $8x - 11 = 125$

19)  $8x + 10 = 38$