

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

11) $9y + \frac{35}{x}$ $x = 5, y = 7$

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

12) $7x + 9 = 53$; 6

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

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

14) Four subtracted from a number

15) The ratio of a number and 9

16) Twice a number, increased by 78

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

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

Write the sentence as an equation. Use x to represent any unknown number.

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

18) Three subtracted from a number is zero.

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) 70
- 12) not a solution
- 13) solution
- 14) $x - 4$
- 15) $\frac{x}{9}$
- 16) $2x + 78$
- 17) $10 - 1 > 6$
- 18) $x - 3 = 0$
- 19) $8x - 11 = 125$
- 20) $8x + 10 = 38$