Name _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Evaluate.

1) $|-20|$

    A) -20 B) 40 C) 20 D) 0

1) _____

Add.

2) $-\dfrac{2}{3} + \dfrac{1}{9}$

    A) $\dfrac{7}{9}$ B) $\dfrac{5}{9}$ C) $\dfrac{7}{81}$ D) $-\dfrac{5}{9}$

2) _____

Find the product.

3) $9(-1)(8)(-9)$

    A) 81 B) 648 C) -648 D) 10

3) _____

Evaluate.

4) $(-5)^3$

    A) 15 B) -15 C) -125 D) 125

4) _____

The name of a property is given followed by part of an equation. Complete the equation to the right of the equal sign to illustrate the given property.

5) $\dfrac{1}{5}(15x - 10) =$

    distributive property

    A) $3x - 10$ B) $75x - 50$ C) $3x - 2$ D) x

5) _____

Solve the equation.

6) $7n - 7 = 28$

    A) $n = 32$ B) $n = 28$ C) $n = 5$ D) $n = 11$

6) _____

7) $\dfrac{f}{3} - 3 = 1$

    A) $f = -12$ B) $f = -6$ C) $f = 12$ D) $f = 6$

7) _____

8) $-2x + 2(-2x - 4) = -5 - 9x$

    A) $x = 1$ B) $x = -\dfrac{13}{3}$ C) $x = -1$ D) $x = \dfrac{13}{15}$

8) _____

Solve the proportion for the variable by cross –multiplying.

9) $\dfrac{7}{x} = \dfrac{0.7}{4.9}$

9) _____

    A) $x = 49$ B) $x = 34\dfrac{3}{10}$ C) $x = 3\dfrac{43}{100}$ D) $x = 4\dfrac{9}{10}$

Write a proportion that can be used to solve the problem. Then solve the equation to obtain the answer.

10) It takes Kathy 18 minutes to type and spell check 10 pages of a manuscript. Find how long it takes her to type and spell check 15 pages. Round to the nearest whole number.

10) _____

    A) 27 minutes   B) 270 minutes   C) 18 minutes   D) 8 minutes

Indicate whether the quotient is 0 or undefined.

11) $\dfrac{7}{0}$

11) _____

    A) Undefined   B) 0

Evaluate the expression for the given value of the variable or variables.

12) $3x^2 - 8xy - 3y^2$; $x = 5$, $y = -6$

12) _____

    A) 273   B) 207   C) –73   D) 789

Simplify.

13) $-9y + 2 - 7 + 6 + y - 1$

13) _____

    A) $-10y + 1$ B) $-8y$ C) $-8y - 1$ D) $-10y$

14) $-7(3r + 4) + 4(6r + 5)$
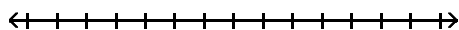
14) _____

    A) $3r - 8$ B) $3r + 4$ C) $-4r - 3$ D) $-49r$

Solve the inequality and graph the solution on a number line.
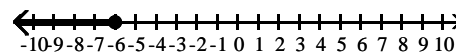
15) $-9x \geq 54$

15) _____
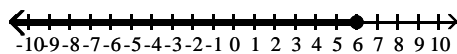
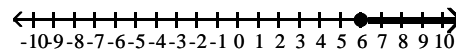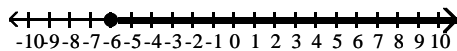   A) $x \leq 6$ B) $x \leq -6$

    C) $x \geq -6$ D) $x \geq 6$

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Include all important steps in arriving at your answer in the following problems.

Evaluate.

    16) $8^2 - 4(2) + 30 \div 5$ 16) _____

Evaluate the expression for the given value of the variable or variables.

    17) $2x^2 - 9xy - 3y^2;\ x = -3,\ y = -6$ 17) _____

Simplify.

    18) $-10(6r + 7) + 10(10r + 8)$ 18) _____

Solve the equation.

    19) $\dfrac{3(y - 2)}{5} = 1 - 3y$ 19) _____

Solve the inequality and graph the solution on a number line.

    20) $-5 + 11x - 9 \geq 10x - 3$ 20) _____

$\longleftarrow \!\!-\!\!+\!\!-\!\!+\!\!-\!\!+\!\!-\!\!+\!\!-\!\!+\!\!-\!\!+\!\!-\!\!+\!\!-\!\!\longrightarrow$