Math 80 Fall 2009 Test Chapters 1 and 2

Tests from past semesters are provided as a study preparation tool. As tests are created by different instructors, problems on current tests may differ. Sample tests are a good beginning point in your test preparation but it is recommended that you don't use sample tests as your only study resource

Name\_\_\_\_\_

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

Add or subtract. Simplify the answer.

1) 
$$\frac{14}{5} - \frac{6}{25}$$

1) \_\_\_\_\_

A)  $\frac{64}{125}$ 

B)  $\frac{64}{5}$ 

C)  $\frac{8}{25}$ 

D)  $\frac{64}{25}$ 

Find the product.

2) \_\_\_\_\_

A) 144

B) -6

C) 36

D) -144

Evaluate  $x^2$ ,  $-x^2$ , and  $(-x)^2$  for:

3) 
$$x=8$$

) \_\_\_\_\_

A)  $x^2 = 64$ ;  $-x^2 = 64$ ;  $(-x)^2 = -64$ 

B)  $x^2 = 64$ ;  $-x^2 = -64$ ;  $(-x)^2 = 64$ 

**Evaluate** 

4)  $-883.08 \div 0$ 

4)

A) -883.08

B)  $-\frac{1}{883.08}$ 

C) undefined

D) 0

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

5) 
$$4(x + 6) + 23$$
;  $x = -15$ 

$$x = -15$$

Solve the equation.

6) 
$$4r + 4 = 20$$

A) 
$$r = 4$$

B) 
$$r = 16$$

C) 
$$r = 1$$

D) 
$$r = 12$$

7) 
$$6x + 6(3x - 6) = -4 - 8x$$

A) 
$$x = -\frac{5}{4}$$
 B)  $x = -\frac{5}{2}$  C)  $x = 1$ 

B) 
$$x = -\frac{5}{2}$$

C) 
$$x = 1$$

D) 
$$x = -1$$

8) 
$$\frac{2x}{5} = \frac{x}{3} + 3$$

A) 
$$x = 45$$

B) 
$$x = -90$$

C) 
$$x = 90$$

D) 
$$x = -45$$

9) 
$$\frac{r}{3} + \frac{6}{3} = \frac{r}{6} + \frac{8}{6}$$

9) \_\_\_\_\_

- A) r = -12
- B) r = -4
- C) r = 3
- D) r = 4

Solve the proportion for the variable by cross-multiplying.

10) 
$$\frac{x}{30} = \frac{9}{10}$$

10) \_\_\_\_\_

- A) x = 27
- B) x = 36
- C) x = 3
- D)  $x = \frac{100}{3}$

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

11) It takes Mary Alice 18 minutes to type and spell check 14 pages of a manuscript. Find how long it takes her to type and spell check 105 pages. Round to the nearest whole number.

11) \_\_\_\_\_

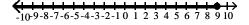
- A) 1890 minutes
- B) 135 minutes
- C) 18 minutes
- D) 82 minutes

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

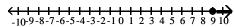
12) 
$$-3x \ge 27$$

12) \_\_\_\_\_

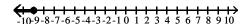




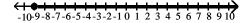




C) 
$$x \le -9$$



D) 
$$x \ge -9$$



Solve for the indicated variable.

13) 
$$A = \frac{1}{2}bh$$
, for b

13) \_\_\_\_\_

A) 
$$b = \frac{h}{2A}$$

B) 
$$b = \frac{A}{2h}$$

A) 
$$b = \frac{h}{2A}$$
 B)  $b = \frac{A}{2h}$  C)  $b = \frac{2A}{h}$  D)  $b = \frac{Ah}{2}$ 

D) 
$$b = \frac{Ah}{2}$$

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

14) 
$$-3x^2 - 5x - 1$$
;  $x = -4$ 

14) \_\_\_\_\_

Simplify.

15) 
$$-9y + 2 - 5 + 6 + y - 3$$

15) \_\_\_\_\_

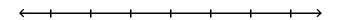
C) 
$$-10y + 1$$

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

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

16) \_\_\_\_\_

 $8x + 5 \le 7x + 15$ 



Simplify.

17) 
$$-6(8r + 8) + 7(3r + 4)$$

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

18) 
$$5(x + y)^2 - 4(x + y) - 9;$$
  $x = -4, y = 3$ 

Solve the equation.

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

Use the order of operations to simplify the expression.

$$20) \frac{8(-7) - (2)4^3}{10 - \sqrt{121} + 5}$$

## Answer Key

## Testname: MATH 80 TEST 1 (CHAPTERS 1 AND 2)

- 1) D
- 2) D
- 3) B
- 4) C
- 5) B
- 6) A
- 7) C
- 8) A
- 9) B
- 10) A
- 11) B 12) C
- 13) C
- 14) D
- 15) A
- 16)
- 17) -27r 20
- 18) 0
- 19)  $y = \frac{11}{18}$
- 20) 46