

Math 111, Spring 2011 Final Exam

Name (print) _____

Directions

1. Time limit: 1 hour 50 minutes. Each test should have 7 **pages**.
2. To receive credit on any problem, you must **show work** that explains how you obtained your answer or you must explain how you obtained your answer.
3. Write your work in **pencil** in the provided spaces. Your work must be neat, organized, and legible. Place answers on the line to the right of the problem.
4. You may use a calculator, but you may not use any notes, books or other sources. You can not share a calculator with another student. You may *not use a cell phone, PDA, etc.* * Work must be shown.
5. If a problem does not specify that an answer be written in fraction notation, mixed number notation, or decimal notation, then write the answer in the notation that you think is most appropriate for the problem. ***All numerical fractions must be expressed in lowest terms.***
6. You are expected to do your own work. You are neither to receive nor to give any help on the exam.
7. Please write your name on the first and second pages.

I have read the directions.

Signature _____

Final Exam

Name _____

Simplify:

1) $-1\frac{2}{5} - (-5\frac{1}{4})$

Answers:

1) _____
(3 points)

2) $(1-4)^3 \div 0.3$

2) _____
(3 points)

3) $32.5 - 48.1(-2.3)$

3) _____
(3 points)

4) $\frac{8}{5}(31.8)$

4) _____
(3 points)

5) $3 - |5 - 7|$

5) _____
(2 points)

6) Change to a decimal:

$$\frac{17}{11}$$

6) _____
(2 points)

7) Change to percent :
0.058

7) _____
(2 points)

8) Change to a fraction and simplify :
65%

8) _____
(2 points)

9) Solve :
20.23 is what percent of 23.8?

9) _____
(3 points)

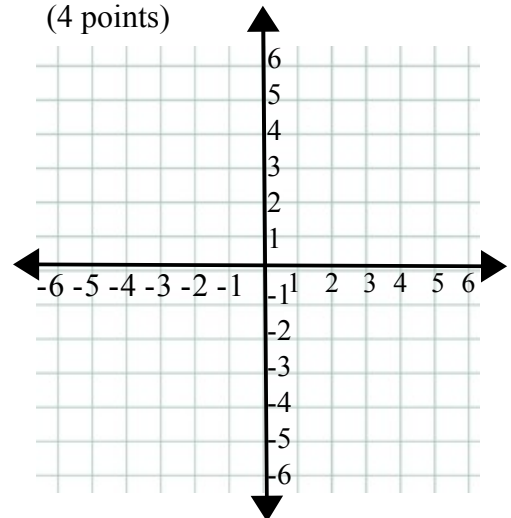
10) Round to the nearest thousandth :
57.94972

10) _____
(2 points)

11) Fill in the table and graph the equation :
 $x - 2y = 4$

x	y
2	
-2	
	1
0	

11)
(4 points)



Solve:

$$12) \frac{2}{5}x = -\frac{8}{3}$$

12) _____
(3 points)

$$13) 2.6x = 11x + 30.24$$

13) _____
(4 points)

$$14) \frac{1}{3}x - 3 = \frac{2}{5}$$

14) _____
(4 points)

$$15) 3(x - 4) = -2x - 22$$

15) _____
(4 points)

16) Solve : $\frac{x}{2.4} = \frac{1.5}{4}$

16) _____
(4 points)

Perform the indicated operations and simplify:

17) $(-3x^4 y^2)(5x y^5)$

17) _____
(3 points)

18) $4a^2 b - 6ab^2 + a - 2a^2 b - 5a$

18) _____
(3 points)

19) $-2y^3(4y^2 + 7y - 1)$

19) _____
(3 points)

20) $(3x + 7)(2x - 5)$

20) _____
(3 points)

21) Write with a positive exponent : $\frac{6}{x^{-4}}$

21) _____
(2 point)

Choose the letter that corresponds to the correct property:

(Questions 22 & 23)

- A) Distributive Property
- B) Commutative Property of Multiplication
- C) Associative Property of Multiplication
- D) Identity Property for Multiplication
- E) Inverse Property for Multiplication

22) $a(x - y) = ax - ay$

22) _____
(1 point)

23) $2 \cdot 5 = 5 \cdot 2$

23) _____
(1 point)

Evaluate:

24) $4x - y + 3$, for $x = 2$ and $y = -5$

24) _____
(3 points)

Evaluate:

25) $-x^2$ for $x = 5$

25) _____
(2 points)

26) $(x + 2)^0$ for $x = 3$

26) _____
(2 points)

27) Find the prime factorization :
126

27) _____
(2 points)

28) Fill in the missing value :
 $7 \text{ yd}^2 = \underline{\hspace{2cm}} \text{ ft}^2$

28) _____
(2 points)

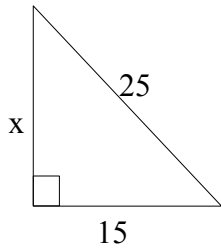
29) 16% of Tanya's monthly salary is spent on food. Tanya spent \$128 on food in March. What was Tanya's salary in March? 29) _____
(4 points)

30) A 12oz can of soda contains 15g of sugar. How many grams of sugar are in a 20oz can of the same type of soda? 30) _____
(4 points)

31) Matt drove 513 miles on 18 gallons of gas. What is his rate in miles per gallon? 31) _____
(3 points)

32) A camera is on sale for 30% off. The original price of the camera was \$120. Find the sale price of the camera. 32) _____
(4 points)

33) Find the length of the third side of the triangle:

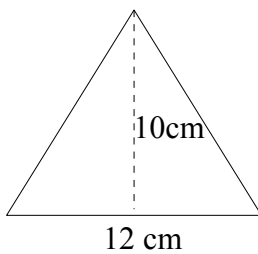


33) _____
(3 points)

34) Find the supplement of an angle measuring 23°

34) _____
(2 points)

35) Find the area of the triangle :



35) _____
(3 points)

36) Find the area of a circle with radius 12 cm (use $\pi \approx 3.14$)

36) _____
(2 points)