

Name: \_\_\_\_\_

Student ID: \_\_\_\_\_

Instructor: \_\_\_\_\_

Class Hour: \_\_\_\_\_

**INSTRUCTIONS:**

- (1) Please fill in all the above information and write your name on the top of each of the 4 exam pages.
- (2) The point value on each problem occurs to the left of the problem.
- (3) You must show sufficient work to justify all answers. Correct answers with inconsistent work may not be given credit.
- (4) No partial credit will be given on problems 1-3. Partial credit may be obtained on problems 4-10 provided sufficient work is shown.
- (5) Circle the letter of the correct answer in problems 1-3 and write the answers to the problems 4-10 in the space provided.
- (6) No books or paper are allowed. Calculators may be used where appropriate.
- (7) The exam is self-explanatory. Please do not ask the instructor to interpret any of the exam question.

Page	Points	Max Possible
1		24
2		32
3		22
4		22
Total		100

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Circle the correct answer to problems 1-3. You must show work to receive credit.

( 8 pts ) 1. Use mathematical symbols to translate the following phrase.

Four less than three times a number.

A.  $4 - 3x$

B.  $3x - 4$

C.  $3(x - 4)$

D.  $\frac{x - 4}{3}$

E.  $4(x - 3)$

( 8 pts ) 2. If  $c = 5$ ,  $x = -4$  and  $y = 3$ , evaluate:  $|3 - c^2| + xy$ ,

A. -5

B. -44

C. -34

D. 16

E. 10

( 8 pts ) 3. Write 371,000,000 in scientific notation.

A.  $37.1 \times 10^7$

B.  $3.71 \times 10^{-8}$

C.  $3.71 \times 10^6$

D.  $3.71 \times 10^8$

E.  $3.71 \times 10^{-7}$

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Place your answers in the space provided. You must show your work to receive credit.

( 12 pts ) 4. Solve for x.

( 6 pts ) a.  $7x + 2 - x = 5x + 3x - 5$

x = 

( 6 pts ) b.  $3(x - 2) - (x + 1) = 5$

x = 

( 10 pts ) 5. A boat travels 34 km/h in still water. How long will it take the boat to travel 72 km upstream if the river's current is 7 km/h. Express your answer in hours and minutes. (Name a variable, set up an equation and solve.) No credit will be given for guessing.

time = 

( 10 pts ) 6. The sum of two numbers is 33. Find the numbers if one exceeds the other by 9. (Name a variable, set up an equation and solve.) No credit will be given for guessing.

numbers =

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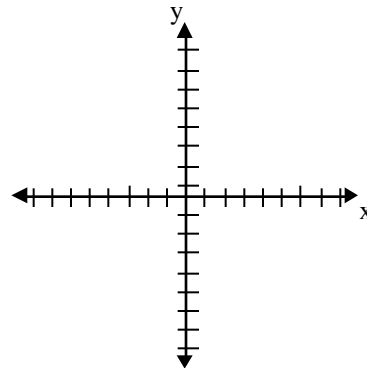
Place your answers in the space provided. You must show your work to receive credit.

( 12 pts ) 7. Simplify. Write your answer using only positive exponents.

( 6 pts ) a.  $\frac{-6x^{-2}y^4z^7}{27x^{-5}y^6z^{-3}}$

( 6 pts ) b.  $(3x^{-2}yz^7)^3$

( 10 pts ) 8. Graph  $y = -x^2 + 1$  You must label at least 3 points on your graph.



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Place your answers in the space provided. You must show your work to receive credit.

( 10 pts ) 9. Determine the slope and the y-intercept of the equation.

$$7x + 4y = 8$$

Slope:	
y-intercept:	

( 12 pts ) 10. Press Printing charges a \$30 set-up fee for all print jobs and \$.07 per copy.

( 8 pts ) a. Write an equation to find the total cost,  $C(p)$ , to print  $p$  copies.

$C(p) =$

( 4 pts ) b. Determine the cost of printing 2000 copies.

Cost of printing 2000 copies =