

Math 70
Exam 2
February 25th, 2011

Name: _____

1. Your exam contains 7 questions and 5 pages; Please make sure you have a complete exam.
2. The entire exam is worth 100 points. Point values vary and these are indicated on each problem. You have 50 minutes for this exam.
3. Make sure to **ALWAYS SHOW YOUR WORK**; you will not receive partial credit unless all work is shown. If in doubt, ask for clarification.
4. Simplify your answers as much as possible.
5. Put a box around your final answer where applicable.
6. If you need extra space, use the back of the exam and clearly indicate this.
7. Be sure to **check your answers!** (especially your negative signs)

Problem	Total Points	Score
1	17	
2	5	
3	39	
4	8	
5	9	
6	8	
7	14	
Total	100	

1. (17 pts.) Simplify the following:

(a) (5 pts.) $-2a + 7b - 6a - b$

(b) (7 pts.) $11[4x^2 + 3x(x - 3)]$

(c) (5 pts.) $3 - \frac{1}{4}(x - 8)$

2. (5 pts.) Evaluate the expression $-5 + 2x^2 - x$ for $x = -3$.

3. (39 pts.) Solve the following equations. (Remember that you can check your answers.)

(a) (7 pts.) $-4 + x = -5 + 10.2$

#2 Continued on the next page →

#2 Continued:

(b) (7 pts.) $\frac{2}{5}y = 8$

(c) (8 pts.) $-2x + 1 = 10x - 3$

(d) (8 pts.) $7(t + 3) + t = -11$

(e) (9 pts.) $\frac{x}{4} = 10 + \frac{x}{5}$

4. (8 pts.) Solve $-16x + 8y = 24$ for the variable y .

5. (9 pts.) You have a choice between two dining tables: One table is square with sides that are 5 feet long. The other table is rectangular with a length of 4 feet and 6 inches and a width of 6 feet.

Which table has more area and what is the difference in area?

6. (8 pts.) Suppose you need to drive 300 miles to visit family and you only have 4 hours to get there.

How fast do you need to drive if you drive at a constant speed? (Include units in your answer.)

7. (14 pts.) For the following problem, define any variables that you use, use **equations** to solve this problem, and state your answer in a complete sentence.

Bob rented a car for one day. He had to pay \$25 for the car and then an additional \$0.50 for each mile that he drove. If his bill was \$56 total (not including tax), how many miles did he drive?