Math 50 - Test #2 Study Guide

Section 22, Fall 2012, Prof. Beydler

Test #2

- Date: Wednesday, October 24, 2012
- Will cover sections 3.3-3.7, and 4.1-4.5.
- You'll have the entire class time to take the test. When you're finished, you can hand it in and leave.
- No calculator, notes, or books during the test.
- The tests are harder than the quizzes, so study hard!
- Please visit my office hours if you need help. If you don't understand something, don't be embarrassed to stop by—I'm very patient. If you can't make it to my office hours, then feel free to e-mail me with any questions: dbeydler@mtsac.edu Also, don't forget to visit the MARC and get extra credit for doing so! (see syllabus for details)

Here are some of the formulas you'll want to know:

- $n^a \cdot n^b = n^{a+b}$
- $(n^a)^b = n^{a \cdot b}$
- $(a + b)(a - b) = a^2 - b^2$
- $n^a \div n^b = n^{a-b}$
- $n^0 = 1$
- Perimeter of a rectangle: $P = 2l + 2w$
- Area of a rectangle: $A = lw$
- Surface area of a box: $SA = 2(lw + lh + wh)$
- Volume of a box: $V = lwh$

I'll give you the following formula:

- Height of falling object: $h = -16t^2 + h_0$

Extra Credit!

- If you write up the answers to all of the review exercises listed below, and hand them in at the test, you can earn up to 2% extra credit towards the test (depending on neatness and completeness)!
- Review exercises:
    - Chapter 3 (p.211) #21-67 all
    - Chapter 4 (p.264) #1-6 all, 9-32 all (Note: you can use tables for 31 and 32)

Vocabulary

A few problems on the test will be about vocabulary words you have learned. They'll be in the "fill-in-the-blank" style just like the notes. Here are the words you'll want to know for that part of the test:

conjugates (3.4)   **linear equation** (4.2)
prime number (3.5)   **equilateral triangle** (4.5)
composite number (3.5)   **isosceles triangle** (4.5)
prime factorization (3.5)   **complementary angles** (4.5)
greatest common factor (GCF) (3.5)   **supplementary angles** (4.5)
factored form (3.6)
surface area (3.7)

And here are the possible sentences you'll see on the test (each word above will fill in one blank below):

The greatest number that divides all given numbers with no remainder is called the
_____.

A natural number that has exactly two different factors (1 and itself) is called a _____.

A product written with prime factors only is called a _____.

A triangle with two sides of equal length is called an _____.

An equation in which each variable term is a monomial of degree 1 is called a _____.

Two angles whose measurements sum to 90° are called _____.

Binomials that differ only in the sign separating the terms are called _____.

A natural number that has factors other than 1 and itself is called a _____.

When a number or expression is written as product of factors it is in _____.

The total number of square units that completely cover the outer shell of a three-dimensional object is called the
_____ of the object.

A triangle with all three sides of equal length is called an _____.

Two angles whose measurements sum to 180° are called _____.