August 17 Math 1190 sec. 51 Fall 2016

Second Day of Class

Today's Agenda

- Questions?
- Any announcements from our SI leader Lauren
- Clicker activities
- Quiz and up coming Exam 1 (part 1) information
- More in class work on prerequisite skills.

Registering a Clicker

At the beginning of class, I will use the ”Roll Call” feature. You will see your name and student ID with a three letter code.

- Grab a clicker from my stash at the beginning of class.
- Look for your name with three letter code on the roll call display. (All names won’t fit on one screen, so it will alternate between groups.)
- Turn the clicker on, and methodically enter your three letter code.
- When your clicker is registered, your name box will turn gray with an ID code in the bottom right corner.
- If you press the wrong code, no worries, just press ”DD” (or ”DDD”).

Clicker Questions

Sample Question 1

The line $y = \frac{1}{2}x - 7$ is **perpendicular** to which of the following lines.

(a) $y = -\frac{1}{2}x + 7$

(b) $y = -2x - 3$ ←

(c) $y = 2x + 7$

(d) $y = \frac{1}{2}x + 7$

(e) None of the above

perpendicular lines have negative reciprocal slopes

here $\frac{1}{2}$ and -2

Sample Question 2

Recall that for True/False questions, we'll always use "A" for true and "B" for false.

True/False If f is a one-to-one function satisfying $f(2) = -3$, then

$$f^{-1}(-3) = 2$$

True. $f(2) = -3$ means

$f^{-1}(-3) = 2$

Sample Question 3

The quadratic equation $x^2 + 2x - 3 = 0$

$(x+3)(x-1)=0$

$x+3=0$ if $x=-3$

$x-1=0$ if $x=1$

(a) has solutions $x = 3$ and $x = -1$

(b) has solutions $x = -3$ and $x = 1$ ←

(c) has solutions $x = 2$ and $x = -3$

(d) has no real solutions.

Sample Question 4

Suppose θ is an angle in standard position, and that

$$\sin\theta < 0 \quad \text{and} \quad \tan\theta > 0.$$

The terminal side of θ must be in quadrant

(a) I (one)

(b) II (two)

(c) III (three) ←

(d) IV (four)

(e) can't be determined without more information

$\sin\theta < 0$ in quad 3, 4

$\tan\theta > 0$ in quad 1, 3

so for both to be true θ is in quad 3

First In Class Quiz: Friday 8/19

We'll have our first in class quiz this Friday at the beginning of class. It should begin within the first 5 minutes or so of class and will last for 10 minutes.

The quiz question(s) will come **directly** from the *Algebra and Trig Review Math 1190 Worksheet 1*.

Algebra and Trig Review
Math 1190 Worksheet 1

NO CALCULATORS on these, unless you want to use them to CHECK your work.

Question 1. *First some algebra...*

(a) Simplify:

$$\left(\frac{3x^{3/2}y^3}{x^2y^{-1/2}}\right)^{-2}$$

(b) Simplify:

$$\frac{x^2}{x+1} \cdot \frac{\frac{y}{x}-\frac{x}{y}}{}$$

Exam 1 part 1

When: Wednesday August 24 from 8:05am–8:30am (25 minutes)

What: This exam will make up 35% of Exam 1 for the semester. It will cover prerequisite topics: Algebra, trigonometry, and function basics. Worksheets 1 and 2 on D2L (and in class) cover this material.

Why: The two main causes of poor performance in Calculus are (1) prerequisite weakness, and (2) insufficient effort. Week 1 is the time to hone those prereq skills and position yourself for success in this class.

Questions?