

**Please Check your Graded Work for Accuracy.**

**Check your Grade Report in D2L e-mail.**

**Today, we'll talk about what to do about the midterm.**

**For various reasons, feedback was delayed (mainly putting out brush fires and extending deadlines).**

**We should have done more, smaller assignments. But I think this**

**is recoverable, but we need a midterm re-take to really do it justice.**

**Starting next week, let's do a weekly "project" that's fewer exercises and goes fairly quickly.**

**Write much. Think little. Use lots and lots of paper. Train your *hand* to do the work, and free your mind! Plant at least one tree in your lifetime. That'll cover *all* the paper you use in your life.**

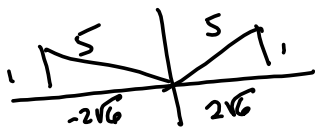
Step away from filling the hour with my lectures, when you already have the theory and tons of examples on archive at harryzaims.com.

Yes. One full sheet, both sides, as a cheat sheet, is permitted.

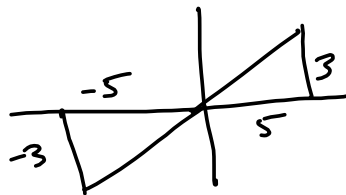
Scientific Calculator required.

Graphing Calculator forbidden.

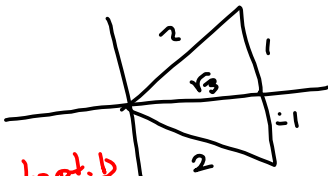
$$\sin(3x) = \frac{1}{5}$$



$$\tan(\beta) = \frac{3}{5}$$



$$\cos(5x) = \frac{\sqrt{3}}{2}$$



$$5x = \frac{\pi}{6} \quad \text{or} \quad 5x = \frac{11\pi}{6}$$

Find all  $x \in [0, 2\pi)$   
 Want  $x \in [0, 2\pi)$   
 Look for  $5x \in [0, 10\pi)$

Key to pt. b

$$5x = \frac{\pi}{6} + 2n\pi$$

$$\frac{\pi}{6}, \frac{13\pi}{6}, \frac{25\pi}{6}, \frac{37\pi}{6}, \frac{49\pi}{6}, \frac{61\pi}{6}, \frac{73\pi}{6}$$

Key to part b

$$5x = \frac{11\pi}{6} + 2n\pi$$

$$\frac{11\pi}{6}, \frac{23\pi}{6}, \frac{35\pi}{6}, \frac{47\pi}{6}, \frac{59\pi}{6}, \frac{71\pi}{6}$$

Divide by 5 for all the x's.

$$b. \quad x = \frac{\pi}{30} + \frac{2n\pi}{5} \quad \text{or} \quad \frac{11\pi}{30} + \frac{2n\pi}{5} = x$$

