# PRE CALCULUS

Ms. Hornecker

Room: G413

## Agenda

- Textbook
- Workbook (you will get tomo)
- Syllabus
- Web Site
- Remind
- Phone Pocket
- Lesson 1.1 and Homework

# TEXTBOOK

Grab a Textbook

You need to have a cover for your textbook by Friday Aug 24!

When you hear your name, let me know the number

# SYLLABUS

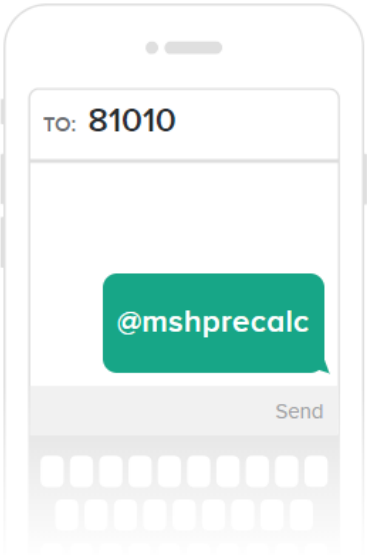
This needs to be signed and
given to me by Monday Aug 20!

Aug 29-6:38 AM

# REMIND

Get your phone out! Sign up for Remind so you can get:

- HW Assignments
- Advisement Times



# PHONE POCKET

- You all are assigned a number
- Look at the seating chart for your number
- Your phone will be up for the ENTIRE class period EVERYDAY
- Put your phones up now

# 1.1 Lines in the Plane

Slope

Slope Intercept form

Point slope equation

Parallel and Perpendicular Lines

Slope - the relationship between the change of a line in the vertical direction in relation to the change in the horizontal direction

$$slope = m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{\Delta y}{\Delta x}$$

1. Find the slope of the line containing the points (1, 5) and (2, -6).

① ②

$$\frac{-6-5}{2-1} = -11$$

Special Lines

Vertical Line equation $x = c$

Slope? und

Horizontal Line equation $y = c$

Slope? 0

Find the equation of a line given the slope and a point

2. $m = 3, \quad pt(-1,5)$

$y = mx + b$

$5 = 3(-1) + b$

$b = 8$

$y = 3x + 8$

Point Slope Eq.

$y - y_1 = m(x - x_1)$

$y - 5 = 3(x + 1)$

$y - 5 = 3x + 3$

$+5 \qquad +5$

$y = 3x + 8$

Use the point slope equation to find the equation of a line given two points:

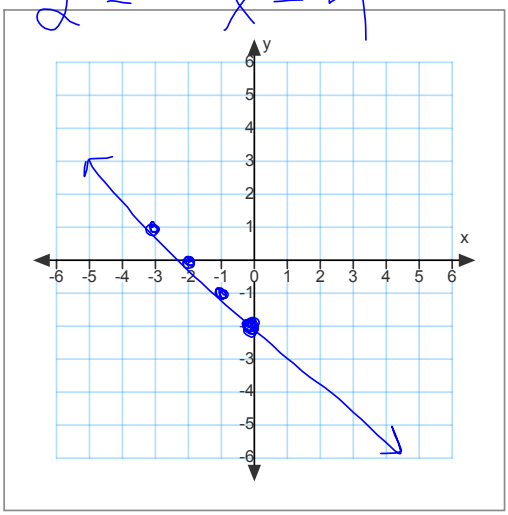
3. (-4, 2) and (-1, -1)

$m = -1$ $y - 2 = -1(x + 4)$

$y - 2 = -x - 4$

Graph the line

$y = -x - 2$



$m = m$

## Parallel and Perpendicular Lines $-\frac{1}{2} \rightarrow 2$

What do you remember about their slopes?

4. Find the equation of the line parallel to $2x - 3y = 6$ through the point $(-9, 2)$

$-3y = -2x + 6$

$y = \frac{2}{3}x - 2$

$y - 2 = \frac{2}{3}(x + 9)$

$y = \frac{2}{3}x + 8$

5. Now find the equation of the line perpendicular to $2x - 3y = 6$ through the point $(-9, 2)$

$m = \frac{2}{3}$

$\perp m = -\frac{3}{2}$

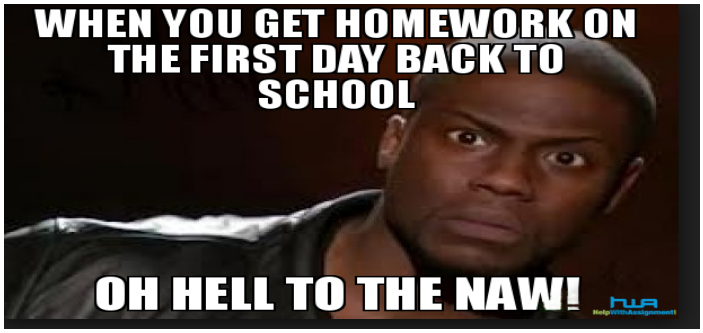
Homework

p 11 19-35 odd, 45, 55, 57,

62, 77, 113-116

due tomorrow

Leave all answers in slope-intercept form




Notecard:

1. Name
2. Grade
3. Math class and grade from last year
4. Teacher in the building you trust
5. Favorite song
6. Plans after High School