	Pre-Calculus Pre-Requisite Review
Objective:	*Given a review problem, students will be able to think, pair and share their solution with their group.*

Study Problems: Review for assessment

(Read your notes, Chapter Test:Page 71 #10-12, 16-21, not mandatory)

Assessment tomorrow

Section on assessment

P.3 Writing equation of lines and finding slopes

slope $m = \frac{y_2 - y_1}{x_2 - x_1}$ $y = mx + b$ $\rightarrow$ $y - y_1 = m(x - x_1)$

P.4 Solving Equation Algebraically and Graphically

- Quadratic Eqn
  - Factor, Complete the Square or Quad Formula
- Radical Eqn
- Absolute Value Eqn.
- Rational Equa

Solve the equation and use graphing utility to check your work.

$a.\ 14+\dfrac{2}{x-1}=10$

$b.\ \dfrac{9x}{3x-1}-\dfrac{4}{3x+1}=3$

a. x=0.5

b. 7/3

b. $\dfrac{9x(3x+1)-4(3x-1)}{(3x-1)(3x+1)}=3$

$27x^2+9x-12x+4=3$

$9x^2-1$

$27x^2-3x+4=3(9x^2-1)$

$27x^2-3x+4=27x^2-3$

$-3x=-7$

$x=7/3$

Solve the equation and use graphing utility to check your work.

$a.\ |3x-1|=x+10$

$3x-1=x+10$

$2x=11$

$x=11/2$

$-3x+1=x+10$

$-4x=9$

$x=-9/4$

$b.\ |x^2+3|=2x$

$-x^2-3=2x$

$x^2+2x+3=0$

$x=\dfrac{-2\pm\sqrt{4-4(1)(3)}}{2(1)}$

$x=\dfrac{-2\pm\sqrt{-8}}{2}$

No soln

$\dfrac{-2\pm 2\sqrt{2}i}{2}$

$-1\pm\sqrt{2}i$

$x^2+3=2x$

$x^2-2x+3=0$

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

$x=1 \quad x=-3$

$x=\dfrac{+2\pm\sqrt{4-4(1)(3)}}{2(1)}$

$x=\dfrac{2\pm\sqrt{-8}}{2}$

$x=\dfrac{2\pm 2\sqrt{2}i}{2}$

$x=1\pm\sqrt{2}i$

No soln

Solve the equation and use graphing utility to check your work.

$a.\ \sqrt{2x+3}+\sqrt{x-2}=2$

$b.\ (x-1)^{2/3}-25=0$

a. x=3

x=11

both extraneous

b. x=126 or x=-124

If possible give an example of a quadratic equation that has

a) No solutions

b) One solution

c) Two solutions $y=(x-3)(x+3)$

Justify your response

$(-x+3)$

Write an equation passing through the point (6, -3) with a slope of 4.

Write an equation passing through the point (1, -2) perpendicular to $3x-6y=15$.

Write an equation passing through the points (2, -4) and (-5, 6).