



Simplify the following radical expression

$$\frac{1-\sqrt{3}}{2+\sqrt{5}} \times \frac{2-\sqrt{5}}{2-\sqrt{5}} = \frac{2-2\sqrt{3}-\sqrt{5}+\sqrt{15}}{4-5}$$

$$= \frac{2-2\sqrt{3}-\sqrt{5}+\sqrt{15}}{-1}$$

$$\therefore -2+2\sqrt{3}+\sqrt{5}-\sqrt{15}$$

Pre-Calculus 110

Unit 6: Absolute Value Functions and Equations

May 24, 2019: Day #5

1. Quiz
2. Test - Wednesday
3. Assignments due Monday

Curriculum Outcomes

AN1: Demonstrate an understanding of the absolute value of real numbers.

RF2. Graph and analyze absolute value functions (limited to linear and quadratic functions) to solve problems.

EX: $|x+5| = 4x-1$

(+)

$$x+5 = 4x-1$$

$$6 = 3x$$

$$x = 2$$

(-)

$$-(x+5) = 4x-1$$

$$-x-5 = 4x-1$$

$$-4 = 5x$$

$$x = \frac{-4}{5}$$

$$|4x - 5| + 9 = 2 - 9$$
$$= -7$$

no solution

$$|x^2 - 3x| = 2$$

⊕

$$x^2 - 3x = 2$$

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

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

$$x = \frac{3 \pm \sqrt{17}}{2}$$

⊖

$$-(x^2 - 3x) = 2$$

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

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

$$(x-2)(x-1) = 0$$

$$x = 1 \text{ or } 2$$

$$|x-5| = x^2 - 8x + 15$$

$$\textcircled{+} \quad x-5 = x^2 - 8x + 15$$

$$0 = x^2 - 9x + 20$$

$$0 = (x-4)(x-5)$$

$$x = \cancel{4} \text{ or } 5 \checkmark$$

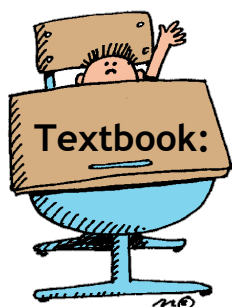
$$\textcircled{-} \quad -(x-5) = x^2 - 8x + 15$$

$$-x+5 = x^2 - 8x + 15$$

$$0 = x^2 - 7x + 10$$

$$0 = (x-5)(x-2)$$

$$x = 5 \text{ or } 2 \checkmark$$



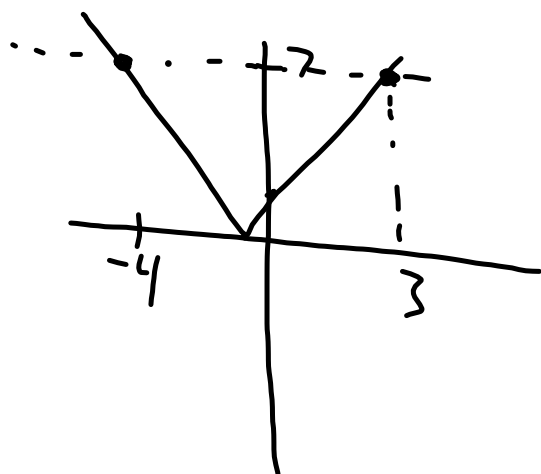
Minimum Preparation:

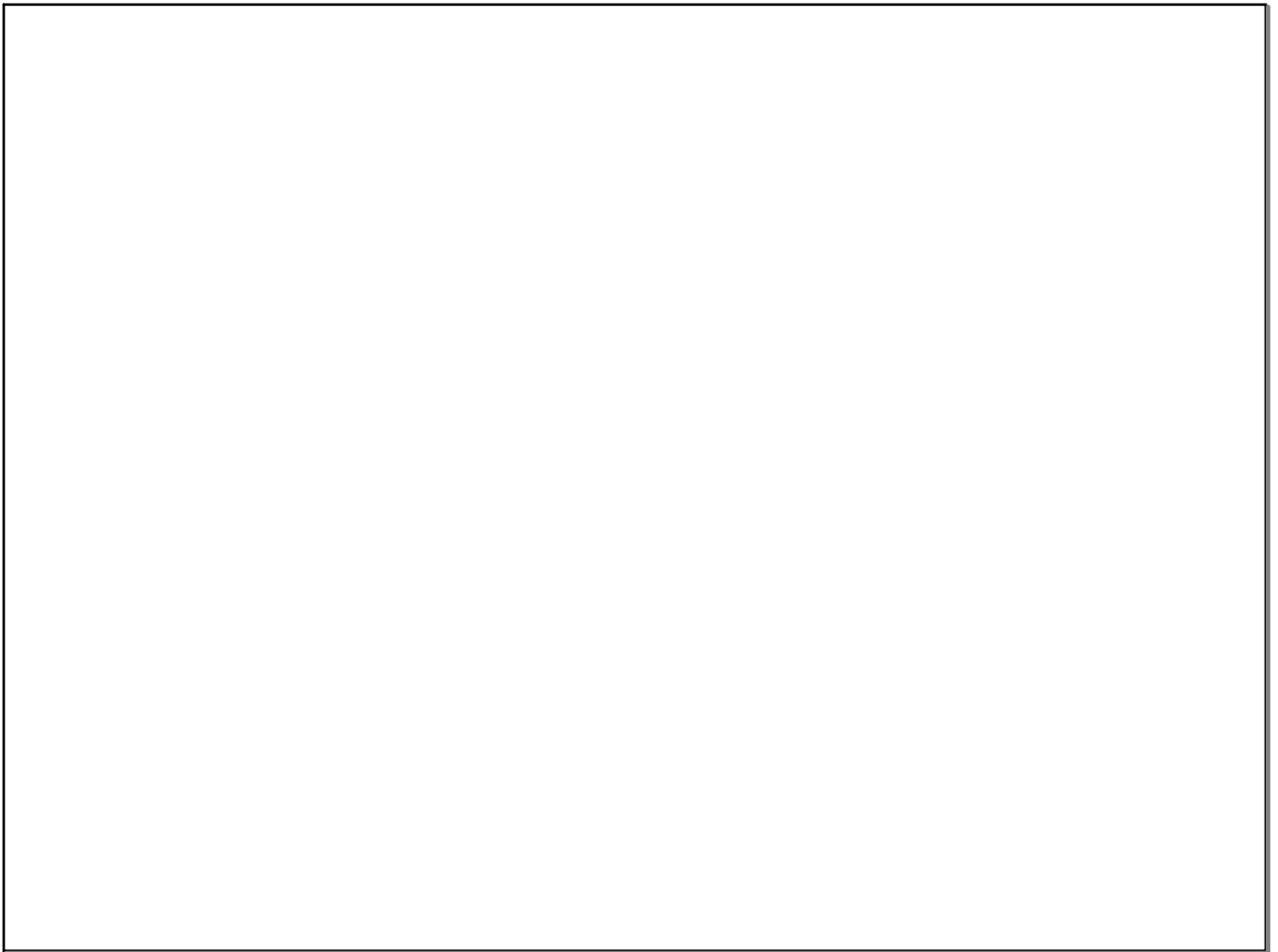
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4, 5, 6ace, 7, 9, 15, 16, 20, 22, 23
Assignments Due Monday, May 27th.

$$|2x+1| = 7$$

$$y = |2x+1|$$





Attachments

Standard Form Demor.GSP

Warm ups.notebook