

Bell Work (10 – 12 minutes)

Solve for x:

$$2|5x - 1| - 4 = 24$$

What is the slope? And how far apart are these 2 points:

(5, -2) and (-7, 3)

Note: these 2 problems will help on quiz today – I took forever to color coat the answers... so please try to understand them 😊

Bell Work Answers:

$$2|5x - 1| - 4 = 24$$

$$2|5x - 1| = 28$$

$$|5x - 1| = 14$$

$$5x - 1 = 14 \quad \text{or} \quad 5x - 1 = -14$$

$$5x = 15 \quad \text{or} \quad 5x = -13$$

$$\mathbf{x = 3 \quad \text{or} \quad x = -13/5}$$

(x_1, y_1) and (x_2, y_2)

$(\mathbf{5}, \mathbf{-2})$ and $(\mathbf{-7}, \mathbf{3})$

$$\text{slope} = \frac{y_2 - y_1}{x_2 - x_1} = \frac{(3) - (-2)}{(-7) - (5)} = \frac{5}{-12}$$

We can use Pythagorean Theorem to find how far Apart the two dots are (the red line on the graph)

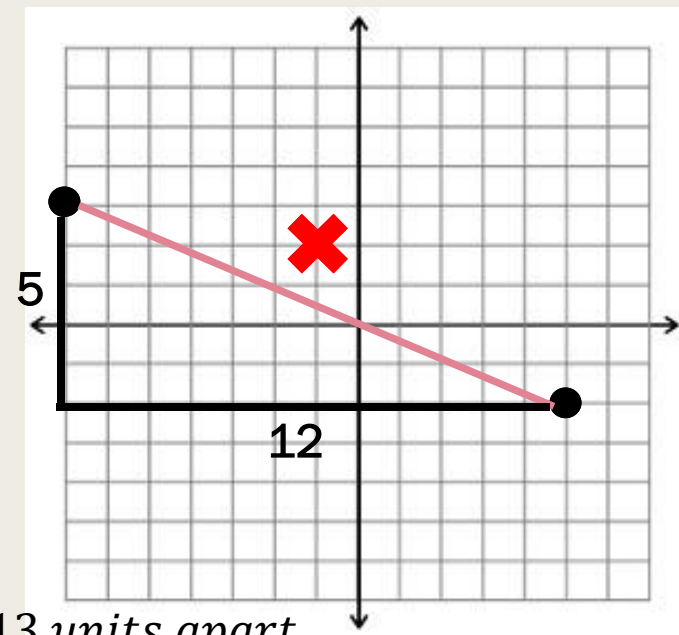
$$a^2 + b^2 = c^2$$

$$5^2 + 12^2 = c^2$$

$$25 + 144 = c^2$$

$$169 = c^2 \rightarrow c = 13$$

X = 13 → the dots are 13 units apart



From last time... (12– 15 minutes)

New Material

Page 78 #4-6, 23, 31, 37, 50

Mixed Review

Page 80 #68, 69, 71



ALGEBRA 3



Review for Quiz (5 – 8 minutes)

Organize your notes, work through last minute problems with a partner or group before the quiz (bell work, old homework, etc)

Level 2

- Solve Inequalities (*hint: only flip sign if multiply or divide by negative*)
- Solve Absolute Value (*hint: should get 2 answers if x inside $|x|$ symbols*)
- Solve Inequality Absolute Value (*hint: apply both hints above*)

Level 3

- Write the Equation of a Line through 2 points (*hint: formula from last time*)
- Find the distance between 2 points (*hint: bell work from today!*)

Level 4

- Set up and solve a problem

Algebra 3 Quiz 2 (12 – 15 minutes on this slide)

Level 2:

Solve for x , if possible.

1.) $2x - 9 + 4 \geq 3x + 8$

Solve for t , if possible.

2.) $20 = |7t + 1| + 5$

Solve for w , if possible.

3.) $2|w - 3| + 1 < 21$

Algebra 3 Quiz 2 (6 – 8 minutes on this slide)

Level 3:

4.) *Write the equation ($y=mx+b$) that passes through the given two points **AND** find the distance between them.*

$(5, -2)$ and $(9, 8)$

Algebra 3 Quiz 2 (6 – 8 minutes on this slide)

Level 4:

Write an equation and solve the following:

- 5.) There is 1 freshman, 6 sophomores and 11 juniors on the volleyball team. If one third of the team is made up of seniors, how many seniors are on the team?

Things to Study for the Test

Copy into notes for studying (5 – 8 minutes)

- Solve equations for the indicated variable
- Solve inequalities and graph on number line
- Solve absolute value
- Solve equations with several steps
- Solve compound inequalities
- Graph a line
- Write equation of line and tell how far apart two points are
- Write an equation and solve it based on a story problem

Work on old assignments from the board
(everything due next class, and/or
this Test Review Assignment (Remaining of Time)

Page 51 #14-15, 18-26, 28-34

Page 53 #13, 17

Page 124 #17-25 (odd)