



PARKSIDE CHRISTIAN ACADEMY

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Weekly Sheet for HS-2 Algebra II

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Week # 5 Dates: Sept 26, 2011 – Sept 30, 2011

Topics/Content/Skills:

Topic: Linear functions.

Content:

Demonstrate an understanding of linear functions

Skills: Students will be able to:

- Demonstrate knowledge of what a linear function is by relating the connection between the distance formula, the slope of a line, and finding the equation of a line given two points, or slope and a line.
- Construct a line after being given an equation or characteristics of a circle.
- Demonstrate recognition of a line given its equation or relevant characteristics.

Vocabulary/Key Terms/Formulas:

Vocabulary:

- a. An **absolute value function** has a special characteristic in that the function will not be negative.
- b. A **transformation** changes a graph's size, shape, position, or orientation.
- c. A **translation** is a transformation that shifts a graph horizontally and/or vertically, but does not change its size, shape, or orientation.
- d. A **vertical stretch** occurs when the coefficient of the variable is greater than one.
- e. A **vertical compression** occurs when the coefficient of the variable is less than one.
- f. A **reflection** occurs across the x-axis when the coefficient changes signs from positive to negative or vice versa.
- g. A **Circle** is a round plane figure whose boundary (the circumference) consists of points equidistant from a fixed center.

Key Terms: All

Formula:

- **Abs (x) = y**

- $x^2 + y^2 = r^2$

Homework:

	<u>Lesson</u>	<u>Homework</u>
<u>Monday</u>	Circle projects due. Test review for circles: will cover graphing of absolute value functions, and finding the equations of a circle.	Student will: <ul style="list-style-type: none"> • Review the link on Khan academy (http://www.khanacademy.org/video/absolute-value-equations-1?playlist=Algebra%20I%20Worked%20Examples) • Review notes, handouts, and slide show to review.
<u>Tuesday</u>	Test day.	Student will: <ul style="list-style-type: none"> • Have no homework
<u>Wednesday</u>	Graphing of linear equations part 1	Student will: <ul style="list-style-type: none"> • Review the link on Khan academy http://www.khanacademy.org/video/linear-equations-in-slope-intercept-form?playlist=ck12.org+Algebra+1+E • Complete handout assignment.
<u>Thursday</u>	Graphing linear functions part 2 <ul style="list-style-type: none"> • Teacher will not be out of the building. 	Students will: <ul style="list-style-type: none"> • Continue working on the activity sheets given in class by the teacher.
<u>Friday</u>	No Class	

Tests:

Test on circles and absolute value functions

Special Events/News:

NA

Extra-ordinaries/Mastery Review Material:

Answer the Following:

- $Y^2+X^2 =9$
- $Y^2+X^2 =16$
- $Y^2+X^2 =25$
- $Y^2+X^2 =36$
- $Y^2+X^2 =49$

What is the radius of the circles on the left?

-
-
-
-
-

Equation of Circle in Standard Form

- $(y-3)^2+(x-1)^2 =9$
- $(y-5)^2+(x-14)^2 =16$
- $(y-1)^2+(x-5)^2 =25$
- $(x+2)^2+(y-12)^2 =36$
- $(y+7)^2+(x+5)^2 =49$
- $(x+8)^2+(y+17)^2 =49$

What is the center and radius of each circle to the left?