Pre-Calculus 1.2

Determining Solutions

 Is $\left(-2,4\right)$ a solution of $y=x^{2}+5x-1$?

 Plug in -2 for the x and 4 for the y to see if the equation is true.

 $4=\left(-2\right)^{2}+5\left(-2\right)-1=4-10-1=-7$

 The point is not on the curve.

Sketching the Graph of a Linear Equation $3x+2y=12$

 Last Resort T Chart

 Plug in an x value and find the y values.

|  |  |
| --- | --- |
| X | Y |
| 0 | 6 |
| 2 | 3 |
| 4 | 0 |
| 6 | -3 |

 Find the Intercepts

 To find the x-intercept, let $y=0$ and solve for the x value.

 To find the y-intercept, let $x=0$ and solve for the y value.

Sketching the Graph of a Function

 $y=x^{2}-3$

 

 

$$y=\left|x-3\right|$$

 

 $y=2^{x}$

Symmetry using a graph

 x-axis

 

 y-axis

 

origin

 

Symmetry using an Equation

 X axis

 If you can substitute a $ –y$ for the $y $and you get the same equation

Y axis

 If you can substitute a $–x$ for the $x$ and you get the same equation

Origin

 If you substitute a $–x$ and you get the negative of the equation

Equation of a Circle

 $\left(x-h\right)^{2}+\left(y-k\right)^{2}=r^{2}$

 $(h, k)$ is the center $r$ is the radius

Graphing a circle