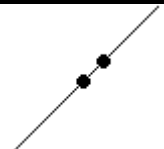





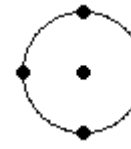

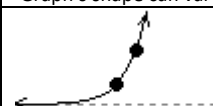



Graphs in College Algebra: Graphing Criterion

in Prof. Rickman's classes.

Shape	Graph	In college algebra* seen when graphing ... (with examples of equations**)
<p>Lines:</p> <p><u>Must plot at least:</u> 2 points</p>		<p><u>Linear Functions and Linear Equations in 2 variables:</u></p> $y = mx + b$ $a x + b y = c$
<p>Parabola:</p> <p><u>Must plot at least:</u> Vertex Point to the left of vertex Point to right of vertex</p>		<p><u>Quadratic Functions:</u></p> $y = a x^2 + b x + c$ $y = a (x - h)^2 + k$
<p>Half a Parabola:</p> <p><u>Must plot at least:</u> Endpoint One other point</p>		<p><u>Square Root Functions:</u></p> $y = a\sqrt{x - h} + k$
<p>Vee:</p> <p><u>Must plot at least:</u> Vertex Point to the left of vertex Point to right of vertex</p>		<p><u>Absolute Value Functions:</u></p> $y = a x - h + k$
<p>Vertical S:</p> <p><u>Must plot at least:</u> Inflection point Point to the left of Inflection point Point to right of Inflection point</p>		<p><u>Cube Functions:</u></p> $y = a (x - h)^3 + k$
<p>Horizontal S:</p> <p><u>Must plot at least:</u> Inflection point Point to the left of Inflection point Point to right of Inflection point</p>		<p><u>Cube Root Functions:</u></p> $y = a \sqrt[3]{x - h} + k$
<p>Circle:</p> <p><u>Must plot at least:</u> Center Top point Bottom point Right point Left point</p>		<p><u>2nd degree equations in 2 variables:</u></p> $Ax^2 + Ay^2 + Dx + Ey + F = 0$ $(x - h)^2 + (y - k)^2 = r^2$
<p>General Polynomial:</p> <p><u>Must plot at least:</u> x-intercepts y-intercept 1 point between consecutive pairs of x-intercepts</p>	 Graph's shape can vary.	<p><u>Polynomial Functions Degree 3 or higher:</u></p> $y = a_n x^n + a_{n-1} x^{n-1} + a_{n-2} x^{n-2} + \dots + a_2 x^2 + a_1 x^1 + a_0$
<p>Exponential:</p> <p><u>Must plot at least:</u> 2 points on the graph</p> <p><u>Asymptotes:</u> Horizontal asymptote must be shown as a dashed line if moved off the axis.</p> <p><u>Other:</u> Must show that graph doesn't stop.</p>		<p><u>Exponential Functions:</u></p> $y = a b^{x-h} + k$
<p>Logarithmic:</p> <p><u>Must plot at least:</u> 2 points on the graph</p> <p><u>Asymptotes:</u> Vertical asymptote must be shown as a dashed line if moved off the axis.</p> <p><u>Other:</u> Must show that graph doesn't stop.</p>		<p><u>Logarithmic Functions:</u></p> $y = a \text{Log}_b(x-h)+k$

* Other functions or equations may have this type of graph, but these are the basic ones that will be seen in college algebra.

** The function or equation can be in other forms.