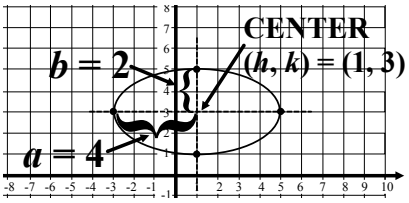
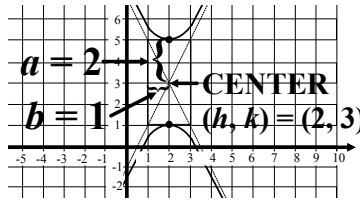
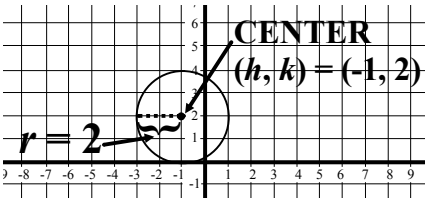
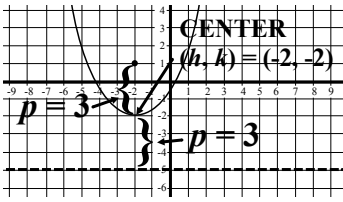
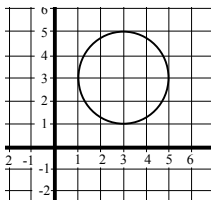
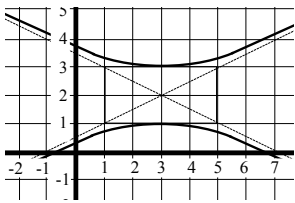
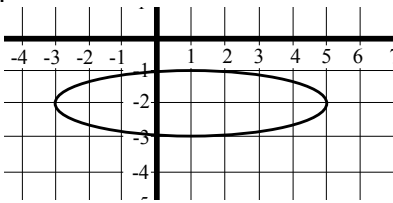


### Identifying Parts on a Conic from a Graph

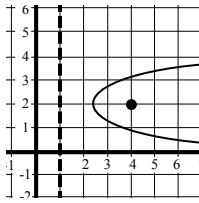
Now that you can identify the type of conic section each graph and equation are, the next step is to identify the parts of a conic. First, we'll identify information from the graphs.

<p style="text-align: center;"><b>Graph of an Ellipse</b></p> <p><math>(h, k)</math> is the center point (the point exactly in the middle)  <math>a</math> is the distance from the center to the vertex (turning point on the ellipse)- in the "<b>winning</b>" direction.  <math>b</math> is the distance from the center to the vertex (turning point on the ellipse)- in the "<b>losing</b>" direction.</p> <p>Example:</p> 	<p style="text-align: center;"><b>Graph of a Hyperbola</b></p> <p><math>(h, k)</math> is the center point (the point exactly in the middle)  <math>a</math> is the distance from the center to the vertex (turning point on the hyperbola)- in the "<b>winning</b>" direction.  <math>b</math> is the distance from the center to the side of the box - in the "<b>losing</b>" direction.</p> <p>Example:</p> 
<p style="text-align: center;"><b>Graph of a Circle</b></p> <p><math>(h, k)</math> is the center point (the point exactly in the middle)  <math>r</math> is <b>radius</b> (distance from the center to the curve).</p> <p>Example:</p> 	<p style="text-align: center;"><b>Graph of a Parabola</b></p> <p><math>(h, k)</math> is the center point (the point exactly in the middle)  <math>p</math> is the distance <b>from the center to the focus</b> (point inside the parabola)  <b>or from the center to the directrix</b> (line outside)</p> <p>Example:</p> 

Identify the type of conic, whether x or y "wins" (and for parabolas, whether it is positive or negative), and the parts.

<p>1.</p>  <p>Conic: _____</p> <p>Circle the winner: X or Y (+ or -)</p> <p><math>(h, k) =</math> _____</p> <p><math>a =</math> _____, <math>b =</math> _____; or</p> <p><math>r =</math> _____; or <math>p =</math> _____</p>	<p>2.</p>  <p>Conic: _____</p> <p>Circle the winner: X or Y (+ or -)</p> <p><math>(h, k) =</math> _____</p> <p><math>a =</math> _____, <math>b =</math> _____; or</p> <p><math>r =</math> _____; or <math>p =</math> _____</p>	<p>3.</p>  <p>Conic: _____</p> <p>Circle the winner: X or Y (+ or -)</p> <p><math>(h, k) =</math> _____</p> <p><math>a =</math> _____, <math>b =</math> _____; or</p> <p><math>r =</math> _____; or <math>p =</math> _____</p>
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4.



Conic: \_\_\_\_\_

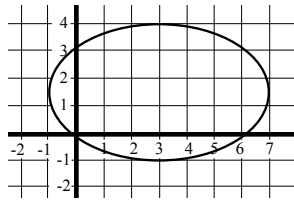
Circle the winner:  $X$  or  $Y$  (+ or -)

$(h, k) =$  \_\_\_\_\_

$a =$  \_\_\_\_\_,  $b =$  \_\_\_\_\_; or

$r =$  \_\_\_\_\_; or  $p =$  \_\_\_\_\_

5.



Conic: \_\_\_\_\_

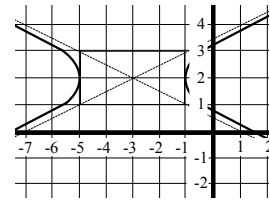
Circle the winner:  $X$  or  $Y$  (+ or -)

$(h, k) =$  \_\_\_\_\_

$a =$  \_\_\_\_\_,  $b =$  \_\_\_\_\_; or

$r =$  \_\_\_\_\_; or  $p =$  \_\_\_\_\_

6.



Conic: \_\_\_\_\_

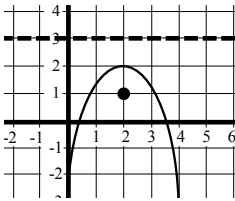
Circle the winner:  $X$  or  $Y$  (+ or -)

$(h, k) =$  \_\_\_\_\_

$a =$  \_\_\_\_\_,  $b =$  \_\_\_\_\_; or

$r =$  \_\_\_\_\_; or  $p =$  \_\_\_\_\_

7.



Conic: \_\_\_\_\_

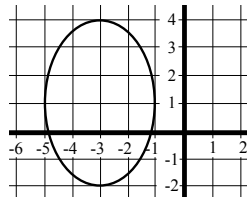
Circle the winner:  $X$  or  $Y$  (+ or -)

$(h, k) =$  \_\_\_\_\_

$a =$  \_\_\_\_\_,  $b =$  \_\_\_\_\_; or

$r =$  \_\_\_\_\_; or  $p =$  \_\_\_\_\_

8.



Conic: \_\_\_\_\_

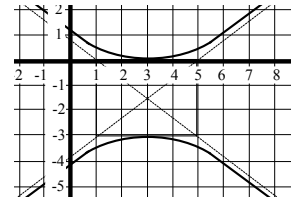
Circle the winner:  $X$  or  $Y$  (+ or -)

$(h, k) =$  \_\_\_\_\_

$a =$  \_\_\_\_\_,  $b =$  \_\_\_\_\_; or

$r =$  \_\_\_\_\_; or  $p =$  \_\_\_\_\_

9.



Conic: \_\_\_\_\_

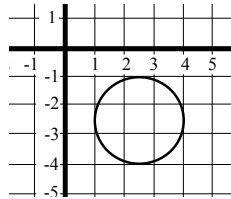
Circle the winner:  $X$  or  $Y$  (+ or -)

$(h, k) =$  \_\_\_\_\_

$a =$  \_\_\_\_\_,  $b =$  \_\_\_\_\_; or

$r =$  \_\_\_\_\_; or  $p =$  \_\_\_\_\_

10.



Conic: \_\_\_\_\_

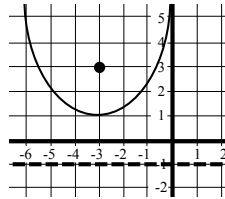
Circle the winner:  $X$  or  $Y$  (+ or -)

$(h, k) =$  \_\_\_\_\_

$a =$  \_\_\_\_\_,  $b =$  \_\_\_\_\_; or

$r =$  \_\_\_\_\_; or  $p =$  \_\_\_\_\_

11.



Conic: \_\_\_\_\_

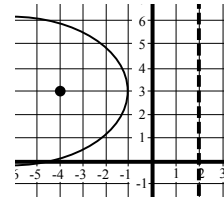
Circle the winner:  $X$  or  $Y$  (+ or -)

$(h, k) =$  \_\_\_\_\_

$a =$  \_\_\_\_\_,  $b =$  \_\_\_\_\_; or

$r =$  \_\_\_\_\_; or  $p =$  \_\_\_\_\_

12.



Conic: \_\_\_\_\_

Circle the winner:  $X$  or  $Y$  (+ or -)

$(h, k) =$  \_\_\_\_\_

$a =$  \_\_\_\_\_,  $b =$  \_\_\_\_\_; or

$r =$  \_\_\_\_\_; or  $p =$  \_\_\_\_\_