

~

$$x = 2(y+1)^2 - 2$$



$$(x+2)^2 + y^2 = 16$$



$$\frac{(x+4)^2}{9} + \frac{(y-1)^2}{16} = 1$$



$$y = -2(x+1)^2 - 1$$



$$(x-1)^2 + (y-1)^2 = 9$$



$$x^2 + \frac{y^2}{16} = 1$$

>

$$y = (x-3)^2 + 2$$

<

$$(x-4)^2 + (y-4)^2 = 1$$

?

$$\frac{(x+1)^2}{36} + \frac{(y+1)^2}{9} = 1$$

&

$$\frac{(x-2)^2}{25} + \frac{(y+3)^2}{4} = 1$$



$$\frac{y^2}{25} - \frac{x^2}{4} = 1$$



$$\frac{x^2}{16} - \frac{y^2}{4} = 1$$

#

$$\frac{y^2}{4} - \frac{x^2}{16} = 1$$

|   |   |   |
|---|---|---|
| <p><b>S</b></p> <p>Vertex is <math>(-2, -1)</math><br/> Opens right<br/> Focus is <math>(-1\frac{7}{8}, -1)</math><br/> Directrix is <math>x = -2\frac{1}{8}</math></p> | <p><b>D</b></p> <p>Vertex is <math>(-1, -1)</math><br/> Opens down<br/> Focus is <math>(-1, -1\frac{1}{8})</math><br/> Directrix is <math>y = -\frac{7}{8}</math></p> | <p><b>M</b></p> <p>Vertex is <math>(3, 2)</math><br/> Opens up<br/> Focus is <math>(3, 2\frac{1}{4})</math><br/> Directrix is <math>y = 1\frac{3}{4}</math></p>         |
| <p><b>F</b></p> <p>Center is <math>(1, 1)</math><br/> Radius is 3</p>   | <p><b>H</b></p> <p>Center is <math>(4, 4)</math><br/> Radius is 1</p>   | <p><b>J</b></p> <p>Center is <math>(0, 0)</math><br/> Major axis lies on the y-axis<br/> Length of the major axis is 8<br/> Length of the minor axis is 2</p>           |
| <p><b>A</b></p> <p>Center is <math>(-4, 1)</math><br/> Major axis is parallel to the y-axis<br/> Length of the major axis is 8<br/> Length of the minor axis is 6</p>   | <p><b>I</b></p> <p>Center is <math>(-2, 0)</math><br/> Radius is 4</p>  | <p><b>G</b></p> <p>Center is <math>(-1, -1)</math><br/> Major axis is parallel to the x-axis<br/> Length of the major axis is 12<br/> Length of the minor axis is 6</p> |

R

Center is (2, -3)  
Major axis is parallel to the y-axis  
Length of the major axis is 10  
Length of the minor axis is 4

N

Center is (0, 0)  
Asymptotes are  $y = \frac{2}{4}x$  and  $y = -\frac{2}{4}x$ , which  
are equal to  $y = \frac{1}{2}x$  and  $y = -\frac{1}{2}x$   
Vertices are (4, 0) and (-4, 0)

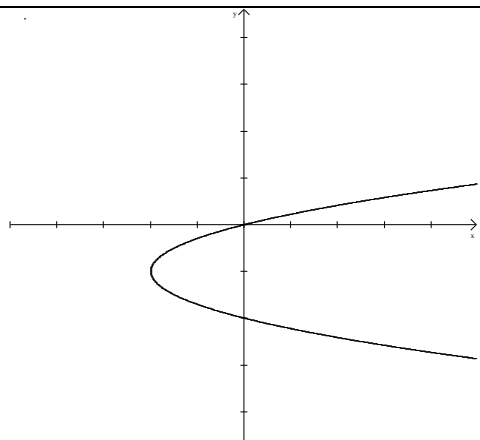
Q

Center is (0, 0)  
Asymptotes are  $y = \frac{2}{4}x$  and  $y = -\frac{2}{4}x$ , which  
are equal to  $y = \frac{1}{2}x$  and  $y = -\frac{1}{2}x$   
Vertices are (0, 2) and (0, -2)

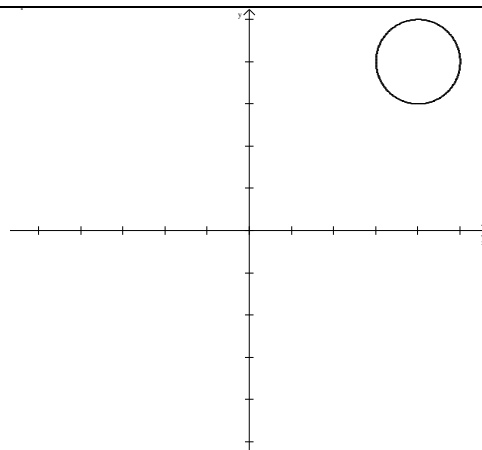
P

Center is (0, 0)  
Asymptotes are  $y = \frac{5}{2}x$  and  $y = -\frac{5}{2}x$   
Vertices are (0, 5) and (0, -5)

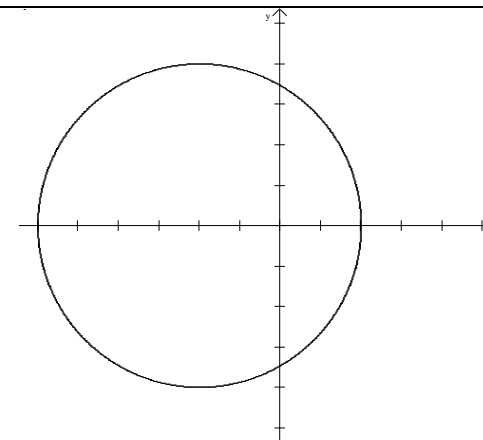
9



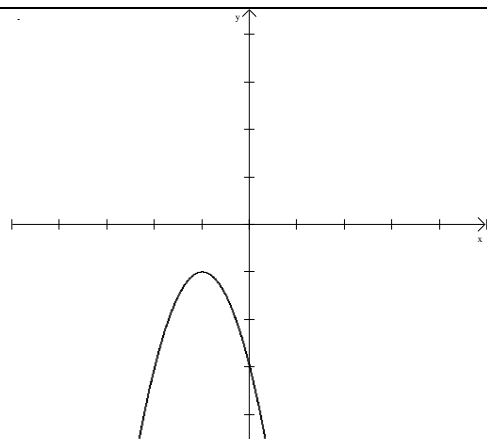
19



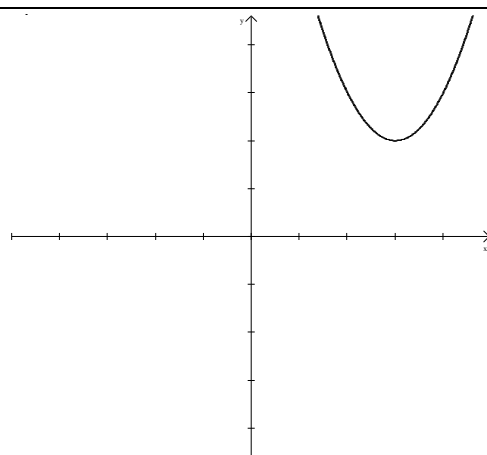
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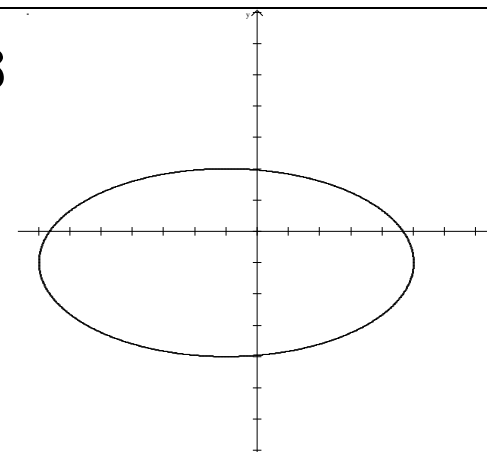
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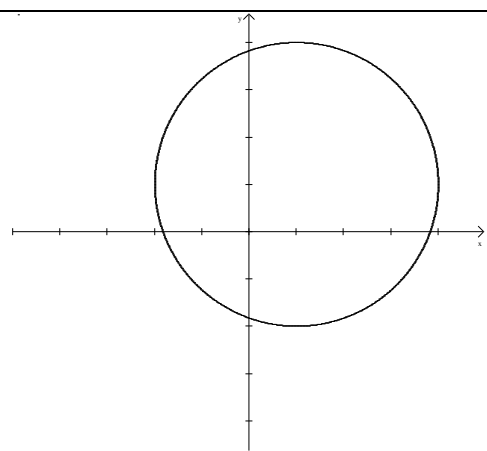
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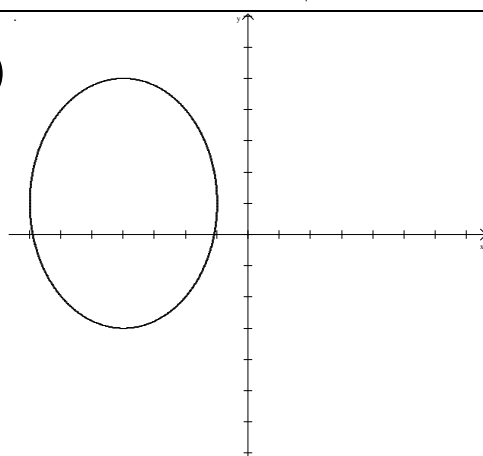
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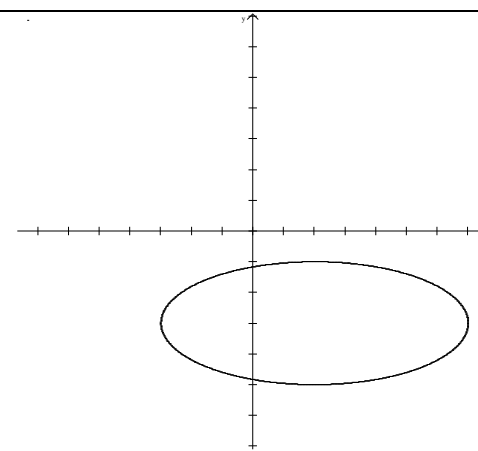
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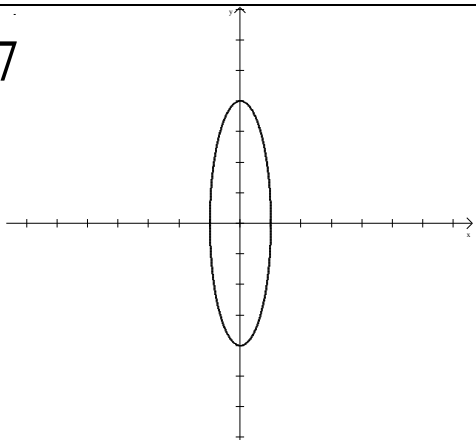
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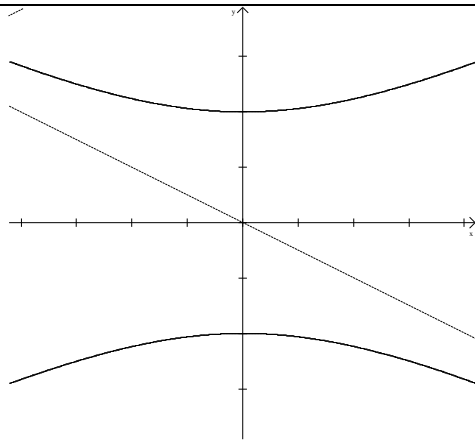
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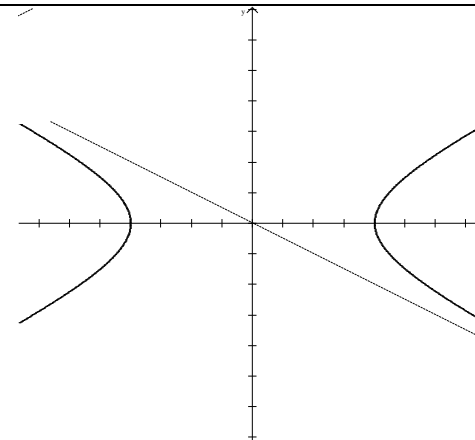
17



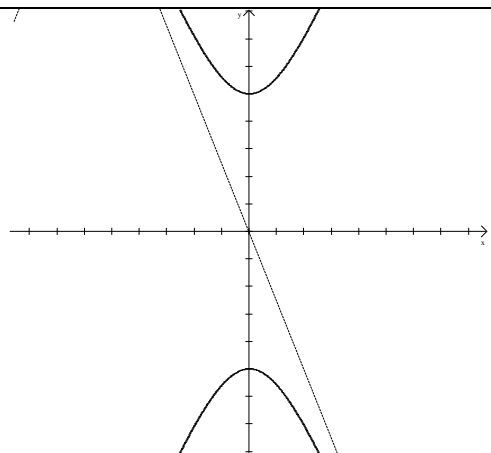
12



5



8



# Conic Cards Deck

## Parabolas

|   |   |    |
|---|---|----|
| ~ | S | 9  |
| ■ | D | 15 |
| > | M | 16 |

## Circles

|   |   |    |
|---|---|----|
| ★ | F | 4  |
| < | H | 19 |
| ▲ | I | 13 |

## Ellipse

|    |   |    |
|----|---|----|
| ♡  | A | 10 |
| \$ | J | 17 |
| ?  | G | 3  |
| &  | R | 7  |

## Hyperbola

|   |   |    |
|---|---|----|
| 😊 | N | 5  |
| # | Q | 12 |
| ■ | P | 8  |