

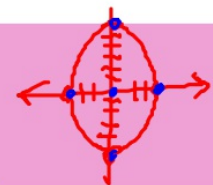
10.1 - Review - Warm - up

1. What is the graph of $36x^2 + 9y^2 = 324$? What are its lines of symmetry? What are the domain and range? $-30x^2$ $-360x^2$

$$\frac{9y^2}{9} = \frac{-360x^2 + 324}{9}$$

$$\sqrt{y^2} = \sqrt{-4x^2 + 36}$$

$$y = \pm \sqrt{-4x^2 + 36}$$



$x=0$
 $y=0$

D: $-3 \leq x \leq 3$
R: $-6 \leq y \leq 6$

Ellipse!

2. Name the conic section with the graph $36x^2 + 9y^2 = 324$. What are the center and intercepts? $x?$ $y?$

Ellipse!

Center (0,0)

(3,0), (-3,0), (0,6), (0,-6)

3. Of the three equations listed, which equation might be a model for each situation?

$x^2 + y^2 = 25$; $x^2 + 25y^2 = 400$; $y^2 - x^2 = 9$

(B)

(A)

(C)

a. the path of a comet around the Sun *Ellipse*

b. the rim of a pizza *Circle*

c. a conic section consisting of two smooth curves intersecting the y-axis *Hyperbola*