



Math Virtual Learning

College Algebra

May 1, 2020



College Algebra

Lesson: May 1, 2020

Objective/Learning Target: Students will be able to identify and graph the conic circles



Warm Up Activity:

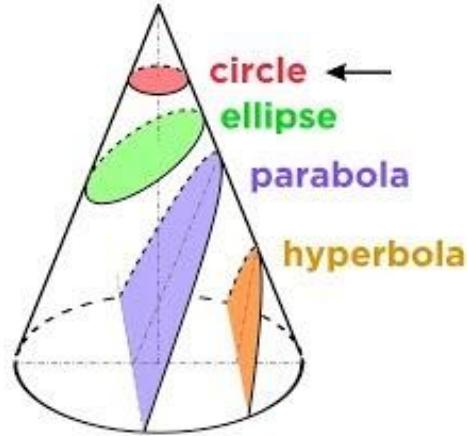
Practice the problems at the link to refresh your skills on finding the distance between two points.

[Skill Practice](#)

Lesson:

Watch the video over circles. We encourage you to have your own sheet of paper out and work along with the video.

Defining Conic Sections



eccentricity:
amount a conic section
deviates from being
perfectly circular

circle: $e = 0$
ellipse: $0 < e < 1$
parabola: $e = 1$
hyperbola: $e > 1$



Practice:

Work through the practice problems at both links

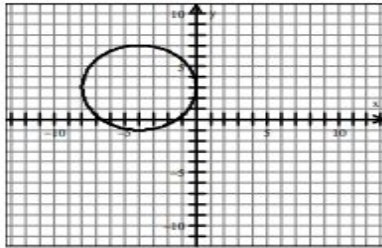
[Properties from equation](#)

[Graph from equation](#)

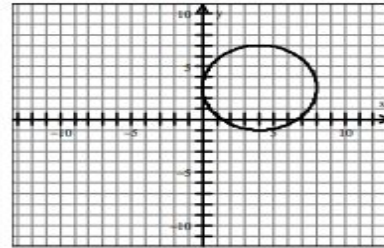
Additional Practice: #20 Match the function to its graph.

$$(x + 4)^2 + (y + 3)^2 = 16$$

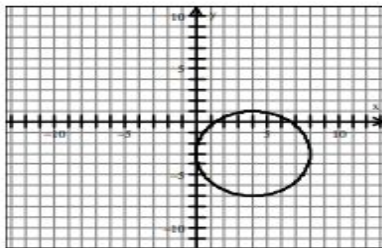
a.



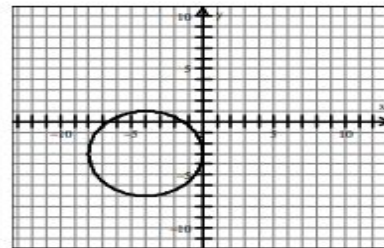
c.



b.

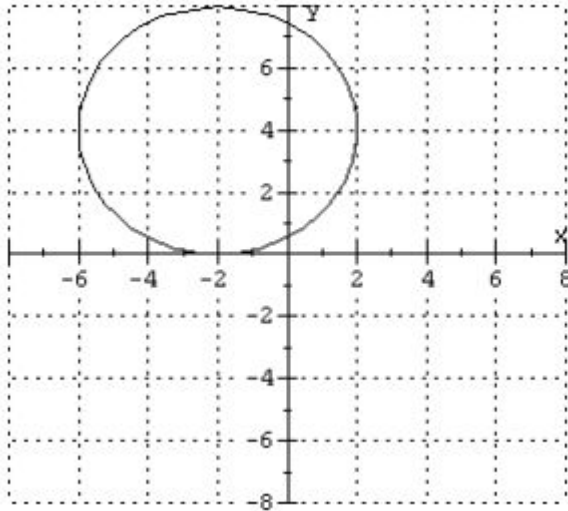


d.



Additional Practice: #30

Find the center and radius of the circle

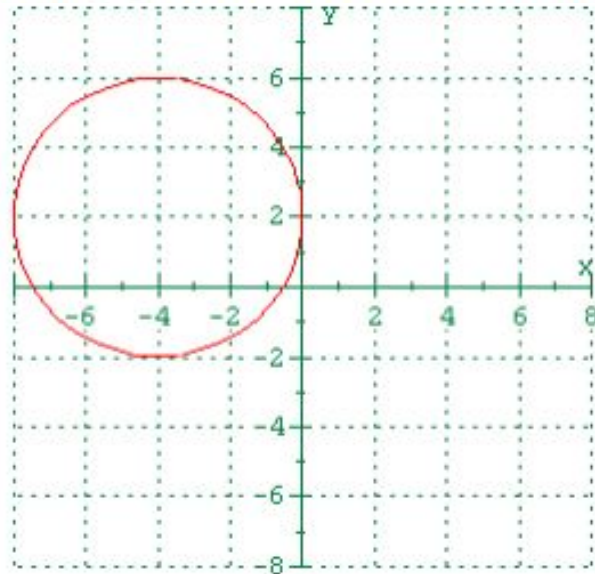


- a. center $(-2, 4)$, radius 4
- b. center $(-2, -4)$, radius 4
- c. center $(-2, -4)$, radius 2
- d. center $(-2, -4)$, radius 2

Additional Practice: Links for Problems [79 & 80](#)

79. Given $x^2 + y^2 - 2x + 6y + 9 = 0$,
find the center and radius of the circle

80. From the graph, find the center and radius of the circle.





Additional Practice Answers:

20) D

30) A

79) center: $(1, -3)$; radius: 1

80) center: $(-4, 2)$; radius: 4