## Unit 6 Lesson 13: Intersection Points

### 1 Which One Doesn’t Belong: Lines and Curves (Warm up)

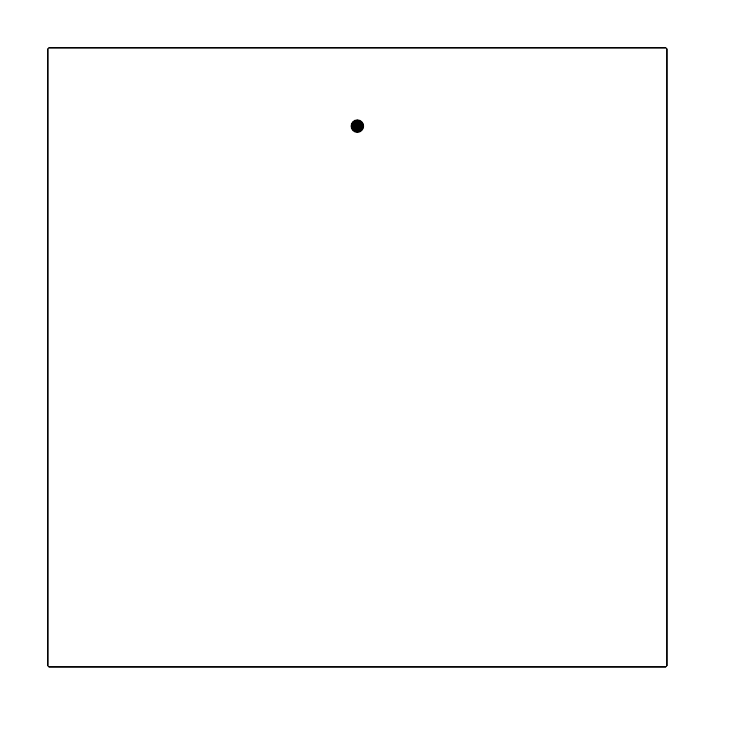
#### Student Task Statement

Which one doesn’t belong?

A



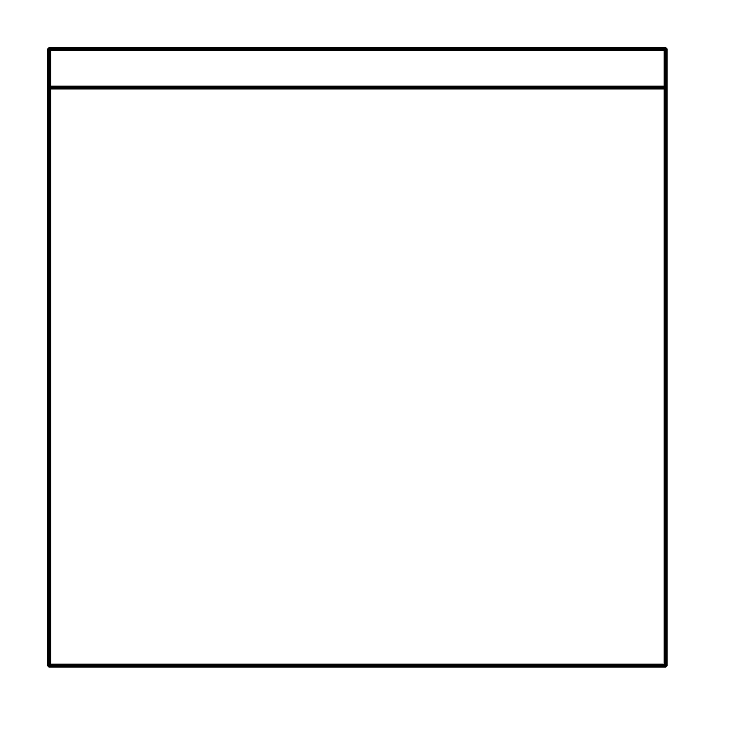
B



C

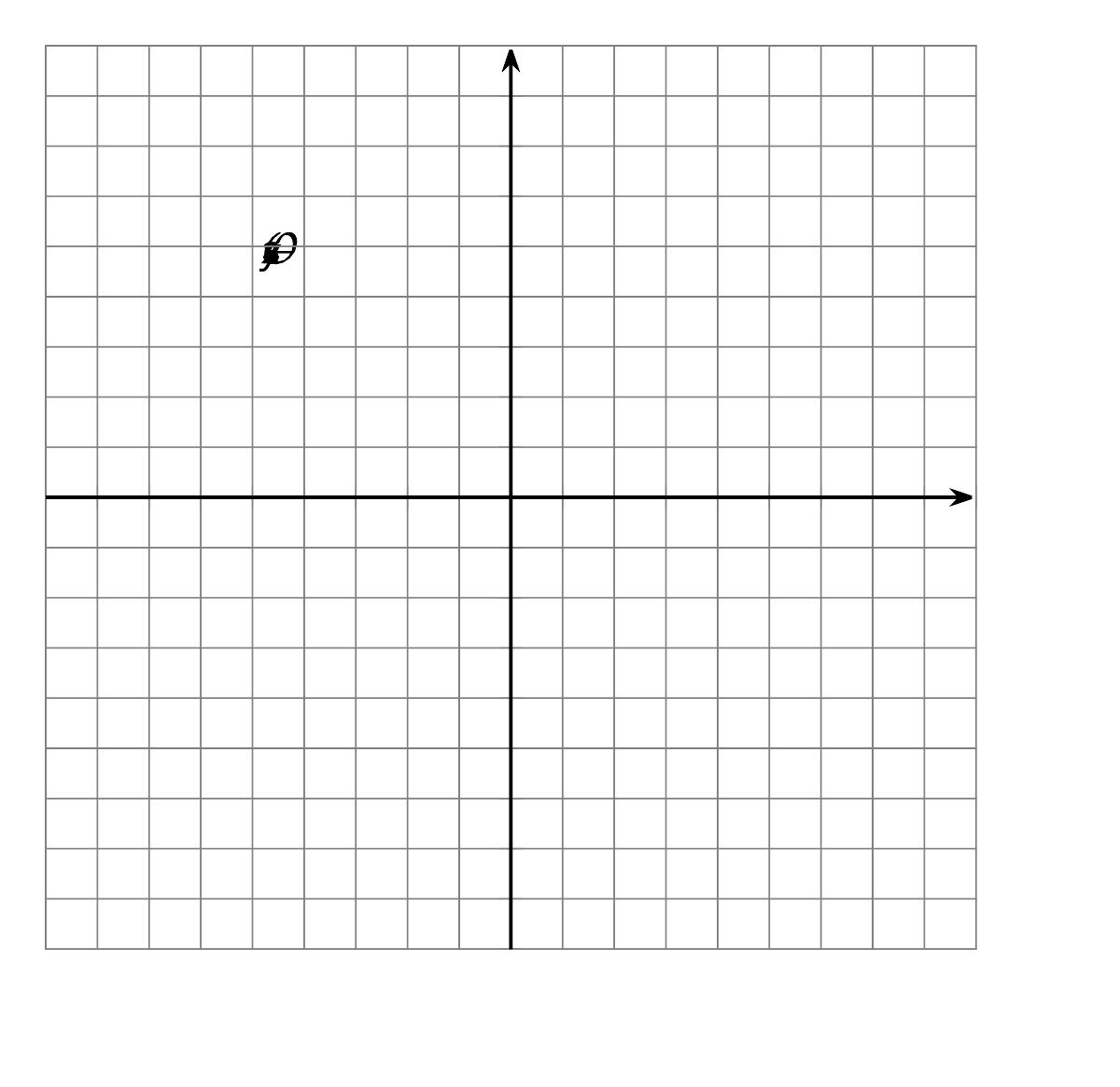


D



### 2 Circles and Lines

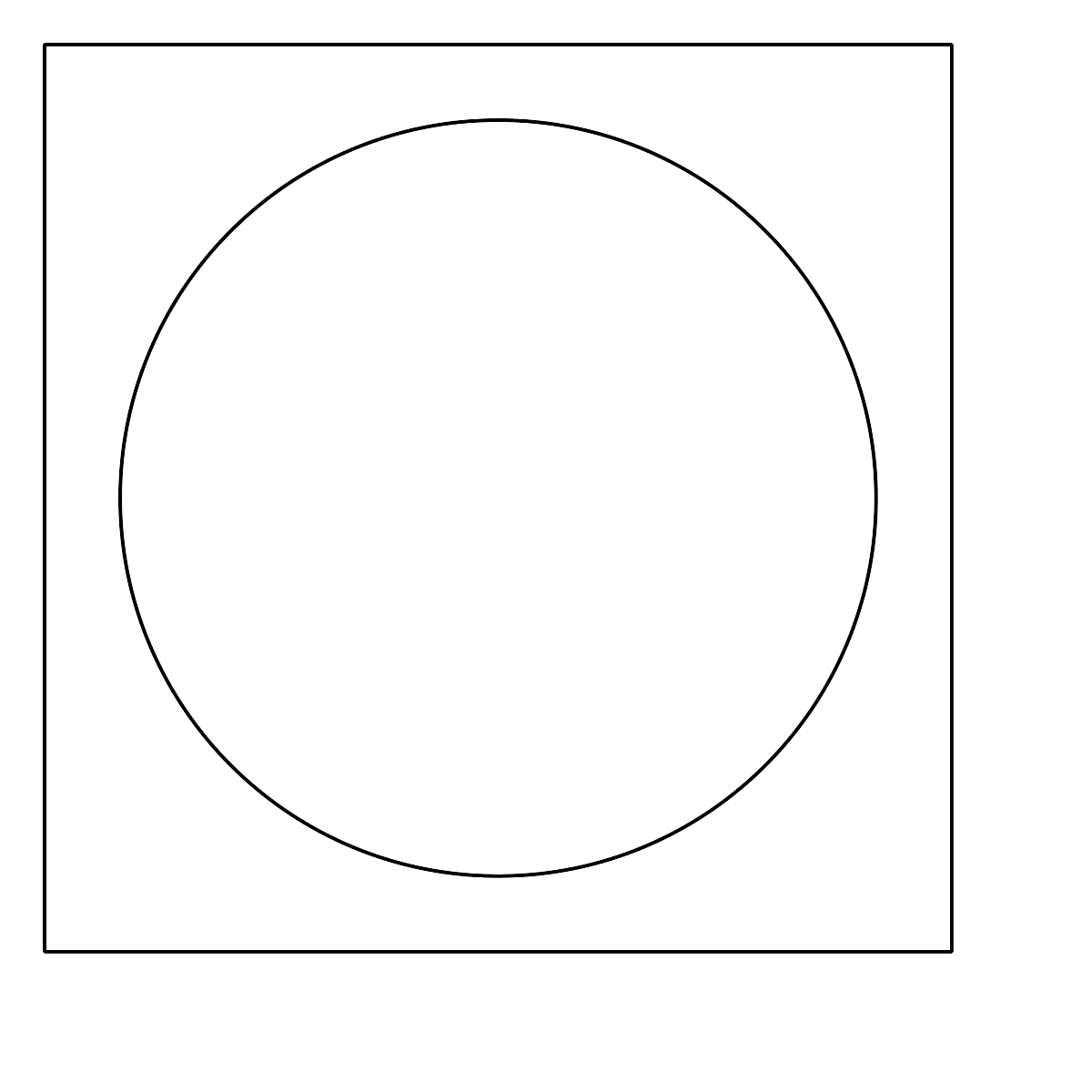
#### Student Task Statement



1. The equation represents a circle. Graph this circle on the coordinate grid.
2. Graph the line . At what points does this line appear to intersect the circle?
3. How can you verify that the 2 figures really intersect at these points? Carry out whatever procedure you decide.
4. Graph the line . At what points does this line appear to intersect the circle? Verify that the 2 figures really do intersect at these points.

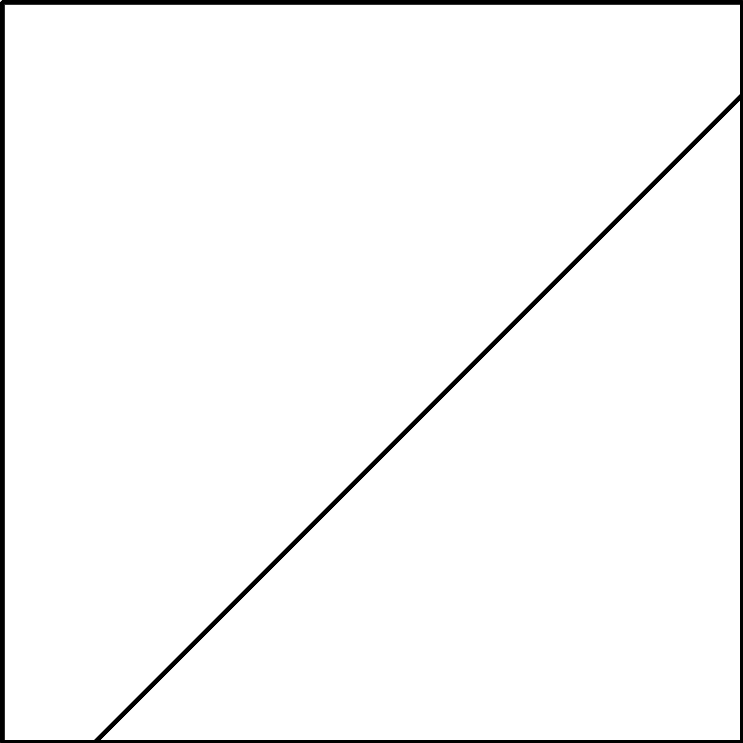
### 3 Creating Lines

#### Student Task Statement



1. Write an equation representing the circle in the graph.
2. Graph and write equations for each line described:
   1. any line parallel to the -axis that intersects the circle at 2 points
   2. any line perpendicular to the -axis that doesn’t intersect the circle
   3. the line perpendicular to that intersects the circle at
3. For the last line you graphed, find the second point where the line intersects the circle. Explain or show your reasoning.

#### Images for Activity Synthesis





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