

## GQ: How do we define a circle with an equation?

CCSS: HSG.GPE.A1 Geometry & equations of conics

11.2 Thursday 26 March

Do Now: Point-slope assessment; answer by Zoom private message

1. What is the slope of  $y = \frac{3}{2}x + 5$ ?
2. Find the  $y$ -intercept of  $4x - y = 7$
3. Identify a point on the line  $y - 3 = \frac{1}{2}(x + 1)$  as an ordered pair
4. Identify a point on the line  $y = \frac{1}{2}x + 6$  as an ordered pair
5. Find the equation of the line with slope 2 through  $(-4, 9)$

Lesson: Finding the center and radius of a circle given its equation  
Video, Desmos discussion; Deltamath classwork "Circle Equations"  
Extra credit: Deltamath "System of Equations of Circle/Line (L1)"

Daily practice: Khan Academy triangle & parallelogram areas

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### Do Now: Point-slope assessment; Answers

1. What is the slope of  $y = \frac{3}{2}x + 5$ ? Answer  $\frac{3}{2}$
2. Find the  $y$ -intercept of  $4x - y = 7$  Answer  $-7$
3. Identify a point on the line  $y - 3 = \frac{1}{2}(x + 1)$  as an ordered pair  
Answer  $(-1, 3)$
4. Identify a point on the line  $y = \frac{1}{2}x + 6$  as an ordered pair  
 $(0, 6)$ , the  $y$ -intercept; others:  $(2, 7)$ ,  $(3, 8)$ , etc
5. Find the equation of the line with slope 2 through  $(-4, 9)$   
Answer:  $y - 9 = 2(x + 4)$