Mathematics Class Slides
Bronx Early College Academy

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23 March 2020

11.1 Deltamath point-slope practice, Tuesday 24 March

11.2 Circle equations review, Thursday 26 March

11.3 Circle area and circumference, Tuesday 31 March

11.4 Circle sector areas, angles, Friday 3 April

GQ: How do we write a linear equation given a point and slope?

CCSS: HSG.CO.B6-8 Understand congruence in terms of rigid motions 11.1 Monday 23 March

Do Now: Welcome to Beca Online!

► Complete the attendance question in Google Classroom

► Write in your notebook my new email, chuson@beca324.org

► Complete the G-Classroom "Do Now" questions

BECA Online expectations

Lesson:
Point-slope form of linear equations
Khan Academy video & Deltamath practice problems
Homework: Complete Deltamath practice, due by 10:00pm

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

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; 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 $(-4, 9)$
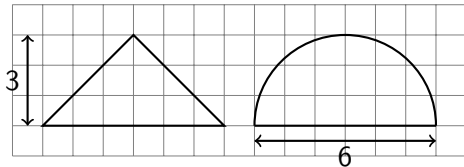   Answer: $y - 9 = 2(x + 4)$

GQ: How do we calculate area & circumference of circles?

Do Now: Simple area and perimeter. (answer in G-Classroom)

1. Find the area of the triangle.
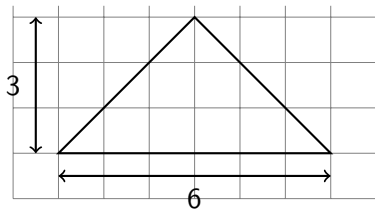2. Find the area and perimeter of the semi-circle.

Lesson:

   Simple areas, compound shapes, "negative" space (subtracting)

Classwork: Deltamath (extra homework problems)
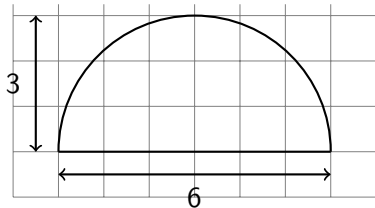
Daily math work: Khan Academy circle practice

Do Now: Solutions of area and perimeter of simple shapes
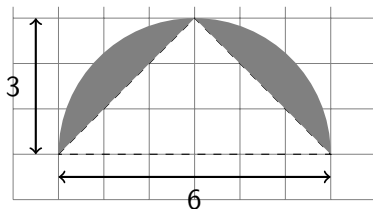
Triangle: $A = \frac{1}{2}bh$
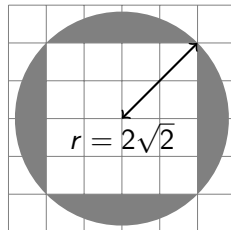

Circle:

$A = \pi r^2 \qquad C = \pi D = 2\pi r$

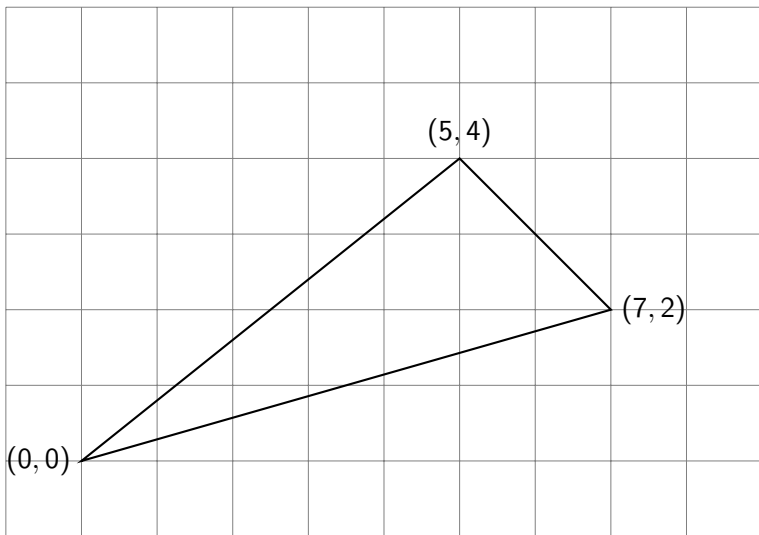# Compound shapes, "negative space" or subtracting areas

Find the area of the shaded
region.

Challenge: Find the area of the
shaded regions.

$r = 2\sqrt{2}$

Find the area of the triangle

GQ: How do we calculate area & circumference of sectors?

CCSS: HSG.GPE.A1 Geometry & equations of conics   11.4 Friday 3 April

Copy the formulas for the area and circumference of circles:

$$A = \pi r^2$$

$$C = \pi D = 2\pi r$$

Do Now: Given the circle centered at O with radius $r = 7$.
(answer in G-Classroom)

1. Find the circumference of a circle, to the nearest tenth.

2. Find the area of the circle, to the nearest tenth..

Lesson: Sector areas, arc length, arc angles
Classwork: Deltamath classwork practice
Exit note

GQ: How do we calculate area & circumference of sectors?

CCSS: HSG.GPE.A1 Geometry & equations of conics   11.4 Friday 3 April

$$A = \pi r^2$$

$$C = \pi D = 2\pi r$$