Name:

BECA / Dr. Huson / Geometry 04 Analytic Geometry

4.12 Do Now Quiz: Linear equations **CCSS.HSG.GPE.B.5**

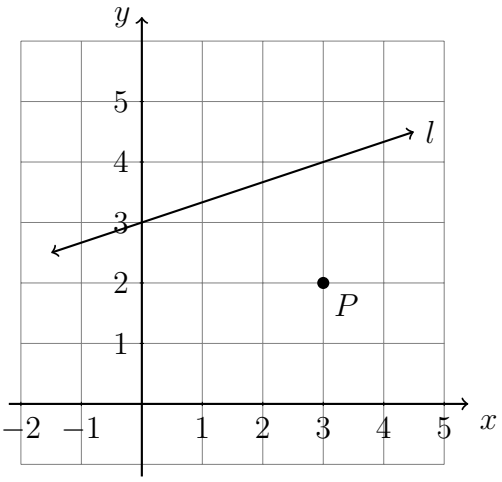
1. The line l is graphed at right.

   (a) Write down the line's slope.
   $m =$

   (b) Write down it's y-intercept.
   $b =$

   (c) Write down the equation of the line.

   (d) Draw a line parallel to l through point P. (use a straight edge for full credit)



2. Find the slope of the line through the points $(-1, 3)$ and $(5, 0)$.

3. Write the linear equation $y - 5 = \frac{2}{3}(x - 3)$ in the form $y = mx + c$.

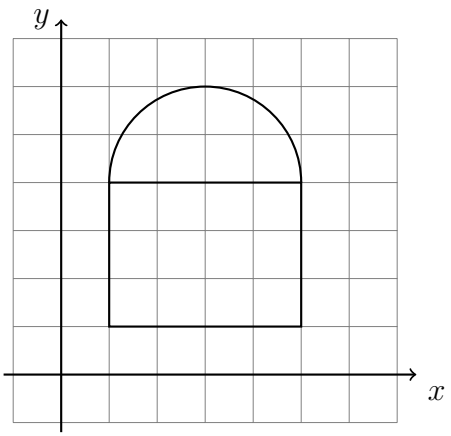
4. Is the point $(4, 7)$ on the line $y = 3x - 5$? Support your answer algebraically.

5. A sphere has a radius of 5 centimeters. CCSSM.8.G.C.9

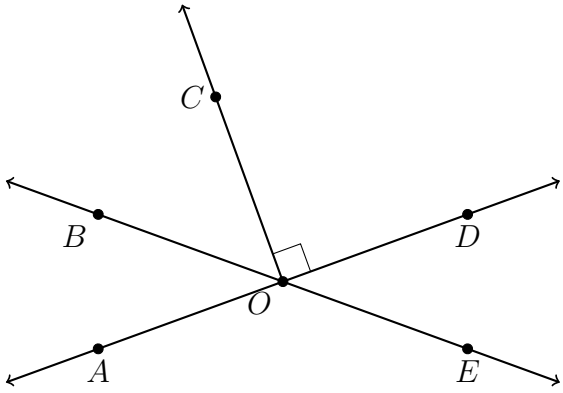
   (a) Write down the general formula for the volume of a sphere.

   (b) Find the volume of the sphere, rounded to the nearest cubic centimeter.

6. Find the *perimeter* of the shape shown below composed of a rectangle and circular cap. Leave your answer as an exact value in terms of π.



7. In the diagram below $\angle BOC = 7x - 50$ and $\angle DOE = 4x - 3$. CCSSM.8.G.B.5
   Find $m\angle AOB$.



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8. A line has a gradient (slope) of $\frac{3}{4}$ and passes through the point $(8, 3)$. Find the equation of the line in the form $y = mx + b$.

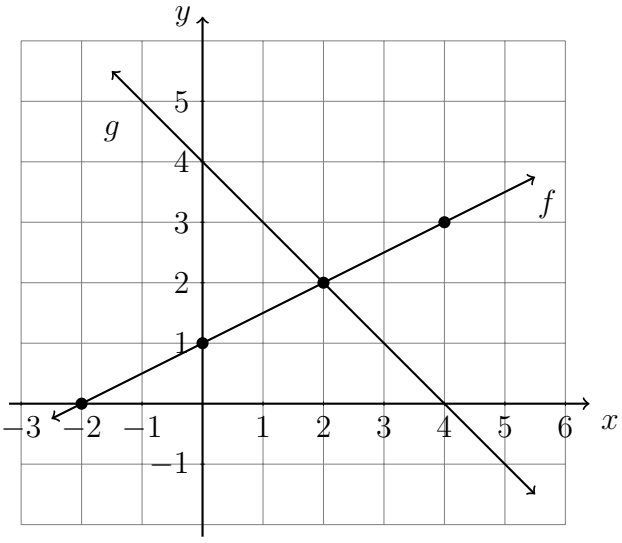
9. Two lines are graphed below.

   (a) Complete the T-tables for each.

   (b) Write down the equations for each.

$f(x)$

x	y
-2	
0	
2	
	3



$g(x)$

10. A function is defined as $f(x) = 2x + 3$. Find each value.

    (a) $f(4) =$

    (b) $f(0) =$

    (c) $f(-3) =$

    (d) $f(1) =$

    (e) Find the value of x that makes $f(x) = 0$