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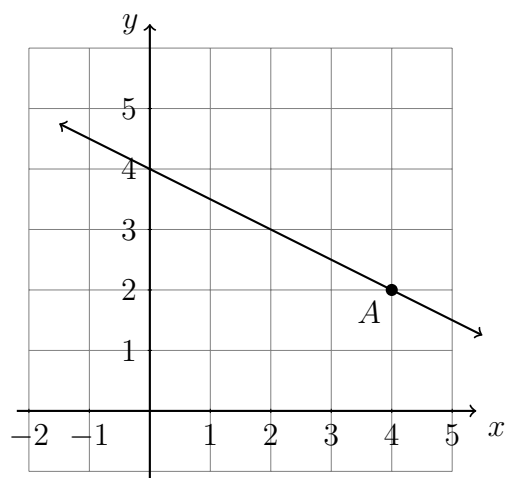
BECA / Dr. Huson / Geometry 04 Analytic Geometry

**4.11 Linear functions**1. Do Now: A linear equation  $f$  is graphed below.(a) State the coordinates of the point  $A$ .

(b) Write down the line's slope.

 $m =$ (c) Write down its  $y$ -intercept. $b =$ 

(d) Write down the equation of the line.

(e) Find the  $x$ -intercept.

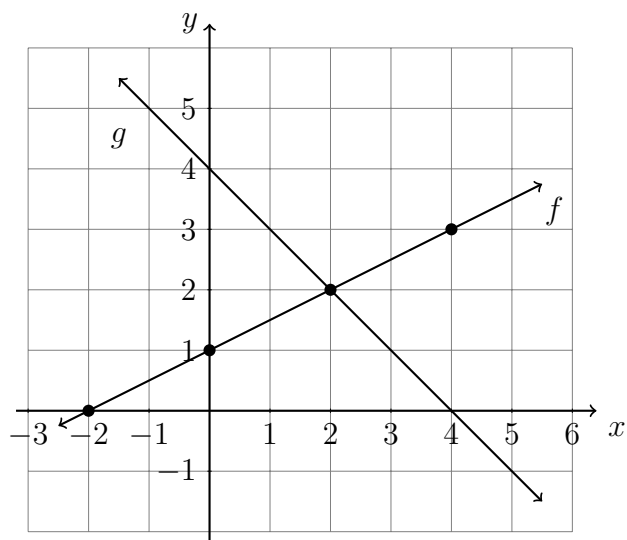
2. Two lines are graphed below.

(a) Complete the T-tables for each.

(b) Write down the equations for each.

$f(x)$

$x$	$y$
-2	
0	
2	
3	



$g(x)$


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

(a)  $f(4) =$

(c)  $f(-3) =$

(b)  $f(0) =$

(d)  $f(1) =$

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

**Point-slope form:**  $(y - y_1) = m(x - x_1)$

4. Write the linear equation  $y - 1 = 2(x - 3)$  in the form  $y = mx + c$ .

5. 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  $y = mx + b$ .

6. Find the equation of the line through the points  $(1, 3)$  and  $(5, 4)$ .