

# Linear and non-linear relationships

## Topic 3: Using the intercept method to graph lines

QUESTION 1 Find the  $x$ -intercept for each equation.

a  $x + y = 2$  \_\_\_\_\_

b  $x - y = 4$  \_\_\_\_\_

c  $2x + y = 6$  \_\_\_\_\_

d  $2x - y = 8$  \_\_\_\_\_

e  $x - 3y = 6$  \_\_\_\_\_

f  $2x - 3y = 12$  \_\_\_\_\_

QUESTION 2 Find the  $y$ -intercept for each equation.

a  $x - 2y = 4$  \_\_\_\_\_

b  $x - y = 8$  \_\_\_\_\_

c  $2x + y = 6$  \_\_\_\_\_

d  $2x - y = 3$  \_\_\_\_\_

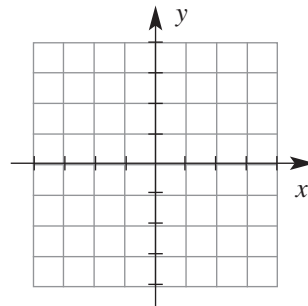
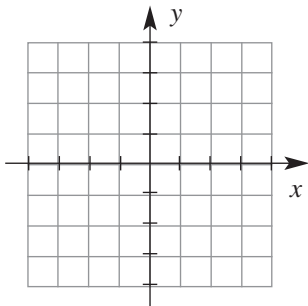
e  $3x - 4y = 12$  \_\_\_\_\_

f  $3x - y = 3$  \_\_\_\_\_

QUESTION 3 Draw the graph of each equation, given the  $x$ -intercept and the  $y$ -intercept:

a  $x$ -intercept = 3,  $y$ -intercept = 2

b  $x$ -intercept = -1,  $y$ -intercept = 3



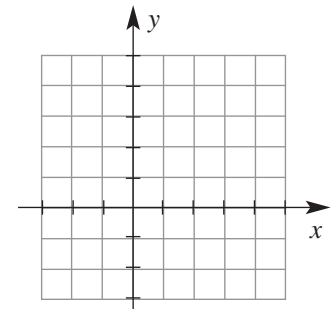
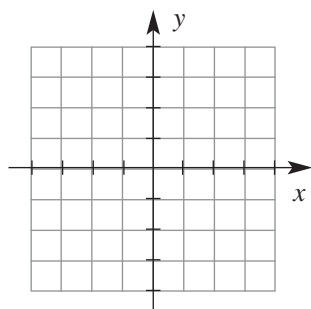
QUESTION 4 For each equation, find the  $x$ -intercept and the  $y$ -intercept and then draw its graph.

a  $y = -2x + 3$

b  $x + y - 5 = 0$

$x$	0	
$y$		0

$x$	0	
$y$		0



c  $y = 2x - 3$

d  $y = \frac{4}{3}x - 1$

$x$	0	
$y$		0

$x$	0	
$y$		0

