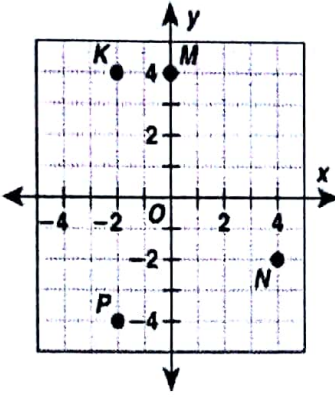
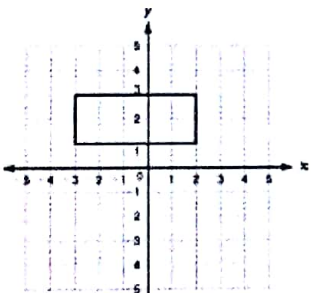
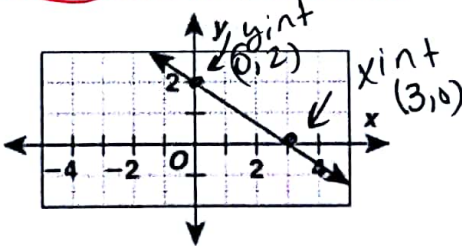
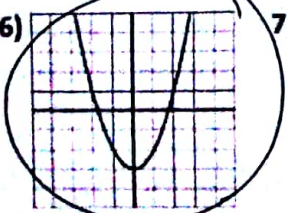
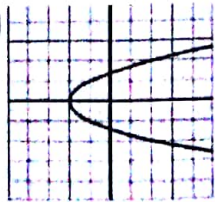
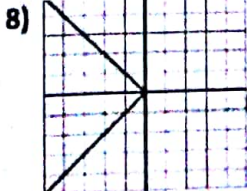
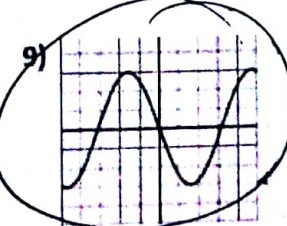
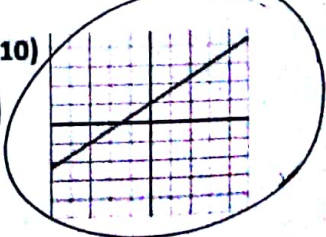


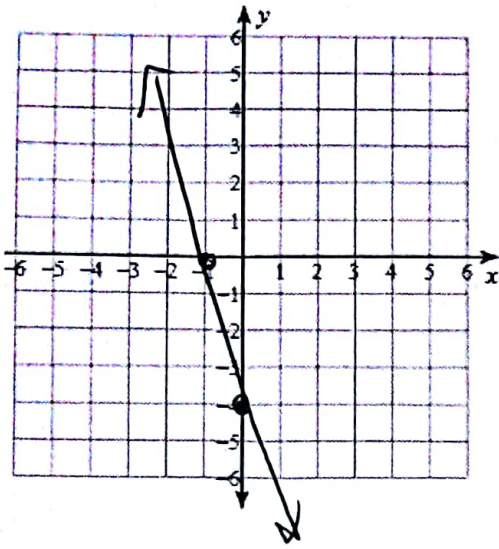
Write the equation for each table.

<p>1) What is a relation? A set of ordered pairs.</p> <p>2) What is a function? Type of relation where each x value is paired with only one y value.</p>	<p>3. What are the coordinates of point P?</p>  <p>F (-2, -4) H (2, -4) G (-2, 4) J (2, 4)</p>	<p>4. In what quadrant is point N located? 4</p> <p>5. Is point M on the x-axis or the y-axis? (0, 4) y-axis</p> <p>6. Is the relation a function? no K(-2, 4) P(-2, -4)</p> <p>7. What is the domain and range? D: {-2, 0, 4} R: {-4, -2, 4}</p> <p>8. In what quadrant is point K located? II</p>								
<p>4.</p> <table border="1" style="margin-left: 20px; border-collapse: collapse; text-align: center;"> <tr><th>x</th><th>y</th></tr> <tr><td>-9</td><td>5</td></tr> <tr><td>-5</td><td>10</td></tr> <tr><td>-1</td><td>15</td></tr> </table> <p>Domain <u>{-9, -5, -1}</u> Range <u>{5, 10, 15}</u> Is it a function? <u>yes</u></p>	x	y	-9	5	-5	10	-1	15	<p>5. Is the following graph a function? Explain.</p>  <p>Does this graph have an x-intercept? If yes, what is it? <u>no</u></p> <p>Does it have a y-intercept? If yes, what is it? <u>yes</u> <u>(0, 1)</u> <u>(0, 3)</u></p> <p>Is this relation a function? <u>no</u></p>	<p>6. The line has what type of slope?</p>  <p>What is the x-intercept? Label it on the picture and write the ordered pair. <u>(3, 0)</u></p> <p>What is the y-intercept? Label it on the picture and write the ordered pair. <u>(0, 2)</u></p>
x	y									
-9	5									
-5	10									
-1	15									

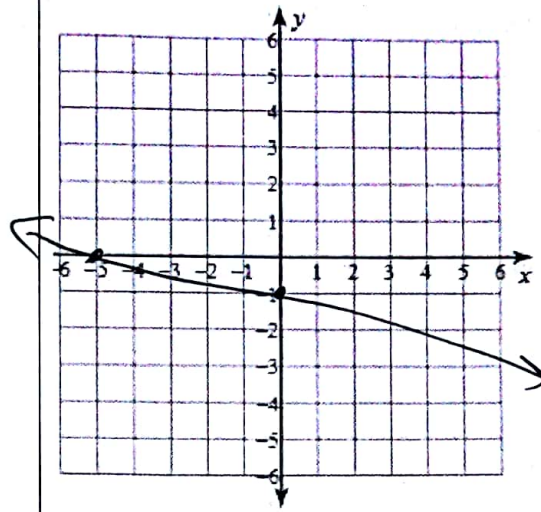
7. Circle the relations that are functions.

6) 	7) 	8) 	9) 	10) 
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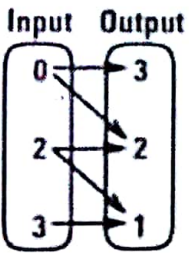
x-intercept = -1, y-intercept = -4



x-intercept = -5, y-intercept = -1



9. Is the following relation a function? Explain.



no
each
x has
more
than 1
y

8

Which of the following relations is a function?

F $\{(1, -6), (3, -5), (1, 0)\}$

G $\{(0, 5), (5, -1), (5, 9)\}$

H $\{(6, 1), (6, 2), (6, 3)\}$

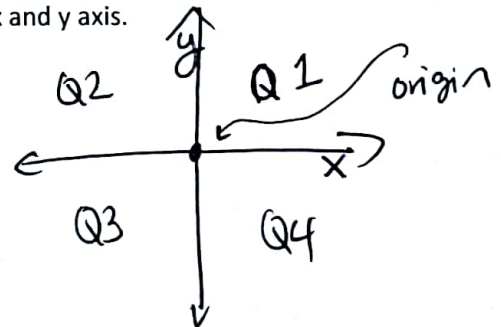
J $\{(0, 8), (1, 7), (2, 6)\}$

10. Find the x and y intercept

$$2x + 3y = 12$$

x int + y = 0
 $2x + 3(0) = 12$
 $2x = 12$
 $x = 6$
 y int x = 0
 $2(0) + 3y = 12$
 $3y = 12$
 $y = 4$
 $(0, 4)$
 (6, 0)

11) Draw the coordinate plane and label the quadrants, the origin, and the x and y axis.



12) Write the steps on how to find the x-intercept.

- replace the "y" with a zero
- solve for x

13) Write in your own words how to find the y-intercept.

- replace the "x" with a zero
- solve for y

A(2,7) B(5,0) C(7,9) D(0,1) E(-9,0) F(8,-9) G(0,8) H(4,8) J(4,0) K(9,0) L(0,9) M(12,0) N(-8,0) K(0,-6)

14) Which of the ordered pairs above are x-intercepts?

B, E, J, K, M, N

15) Which of the ordered pairs above are y-intercepts.

D G L K

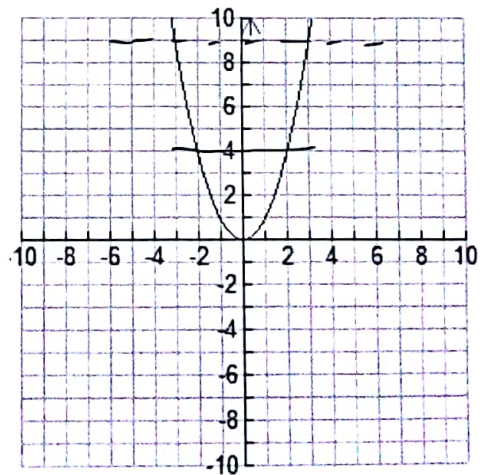
$g(x) = -8x + 3$	$h(x) = x^2 - 4$	$f(x) = x^3 + x$
------------------	------------------	------------------

Evaluate the following functions.

<p>16) $g(5)$</p> $g(5) = -8(5) + 3$ $= -40 + 3$ $= -37$ <p>ordered pair $(5, -37)$</p>	<p>17) $h(-4)$</p> $h(-4) = (-4)^2 - 4$ $= 16 - 4$ $= 12$ <p>ordered pair $(-4, 12)$</p>	<p>18) $h(4)$</p> $h(4) = (4)^2 - 4$ $= 16 - 4$ $= 12$ <p>ordered pair $(4, 12)$</p>
<p>19) $f(-5)$</p> $f(-5) = (-5)^3 + (-5)$ $= -125 + -5$ $= -130$ <p>ordered pair $(-5, -130)$</p>	<p>20) $g(-6)$</p> $g(-6) = -8(-6) + 3$ $= 48 + 3$ $= 51$ <p>ordered pair $(-6, 51)$</p>	<p>21) $f(-2)$</p> $f(-2) = (-2)^3 + -2$ $= -8 + -2$ $= -10$ <p>ordered pair $(-2, -10)$</p>

22) Find the following:

$f(-1) = 1$	ordered pair $(-1, 1)$
$f(-2) = 4$	ordered pair $(-2, 4)$
$f(-3) = 9$	ordered pair $(-3, 9)$
$f(1) = 1$	ordered pair $(1, 1)$
$f(2) = 4$	ordered pair $(2, 4)$
$f(3) = 9$	ordered pair $(3, 9)$



23) Find the following.

$x = 3$ when $f(x) = 9$ $x = -3$

$x = 2$ when $f(x) = 4$ $x = -2$

24) What is the x-intercept? $(0, 0)$

25) What is the y-intercept? $(0, 0)$

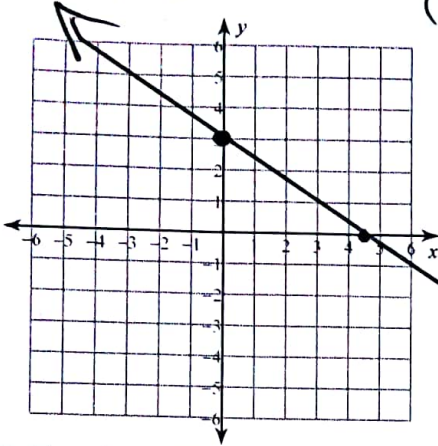
Unit 2 Study Guide

Sketch the graph of each line.

1) $2x + 3y = 9$

xint
(4.5, 0)

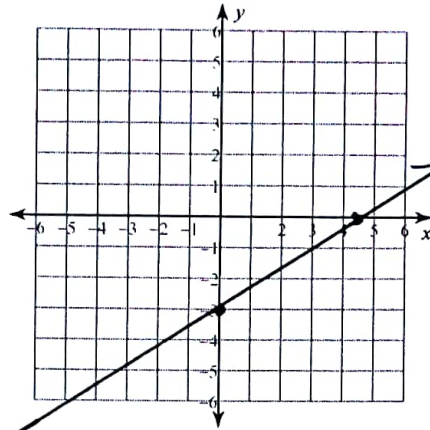
yint
(0, 3)



2) $2x - 3y = 9$

xint
(4.5, 0)

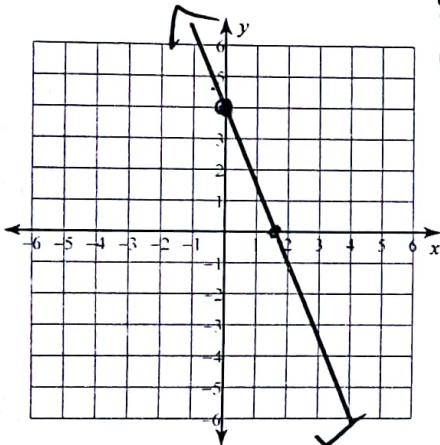
yint
(0, -3)



3) $8x + 3y = 12$

yint
(0, 4)

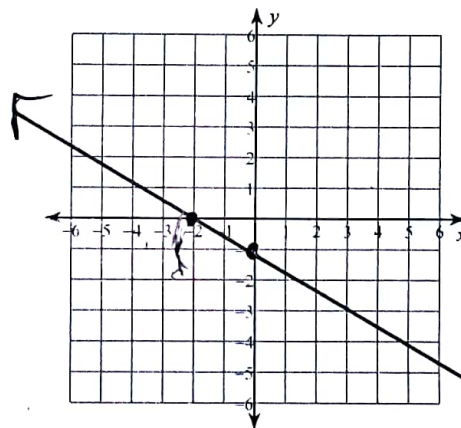
xint
(1.5, 0)



4) $x + 2y = -2$

xint
(-2, 0)

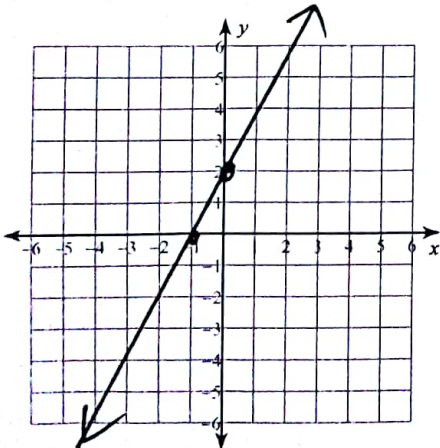
yint
(0, -1)



5) $2x - y = -2$

yint
(0, 2)

xint
(-1, 0)



6) $x + y = 5$

yint
(0, 5)

xint
(5, 0)

