KEY

Name: _____ Date: _____

Chapter 4 Practice Test

1) Create an equation using the table of values.

a)

x	y
1	6
2	2
3	-2
4	-6

When $x = 17$, what is y?

$y = -4(17) + 10$

$y = -68 + 10$

$y = -58$

$y = -4x + 10$

b)

m	n
2	45
4	65
6	85
8	105

When $n = 575$, what is m?

$575 = 10m + 25$

$-25 \quad -25$

$550 = 10m$

$\frac{550}{10} = \frac{10m}{10}$

$m = 55$

$n = 10m + 25$

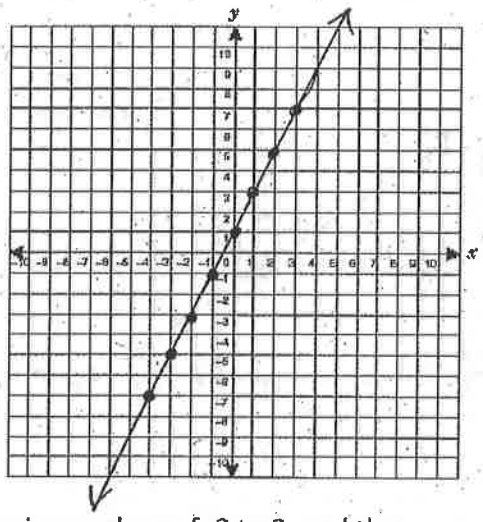
2) Four days ago, the temperature outside was ~~7~~ -7 degrees. Each day since then, it has risen 2 degrees each day.

a)Create a table of values that represents from 4 days ago until 3 days from now.

b) Graph. Should you join the dots? Why or why not?

Day	Temperature
-4	-7
-3	-5
-2	-3
-1	-1
0	1
1	3
2	5
3	7

(b) Yes. You can find the temp 3 and a half days ago if you like
- the data is continuous



3) Create a table of values for the linear relation $y = 4 - 2x$ using x values of -3 to 3, and then graph.

x	y
-3	10
-2	8
-1	6
0	4
1	2
2	0
3	-2

$y = 4 - 2x$

$y = 4 - 2(-3)$

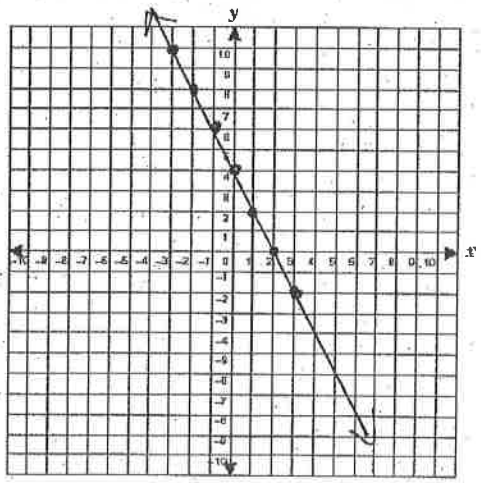
$= 4 + 6$

$= 10$

$y = 4 - 2(-2)$

$y = 4 + 4$

$= 8$

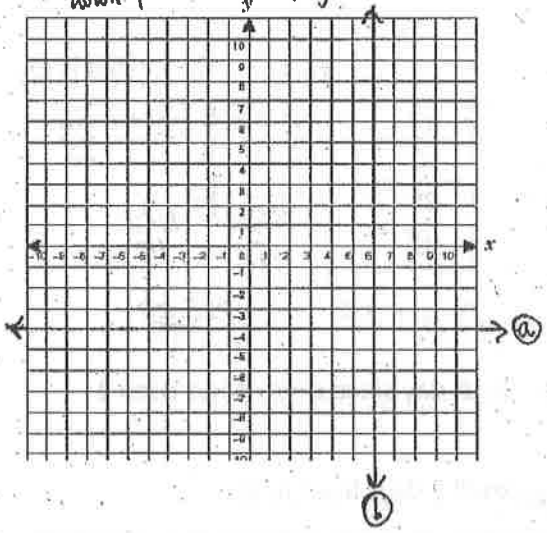


4) Graph each equation with or without a table of values.

a) $y = -4$ AND b) $x = 6$

horizontal down 4

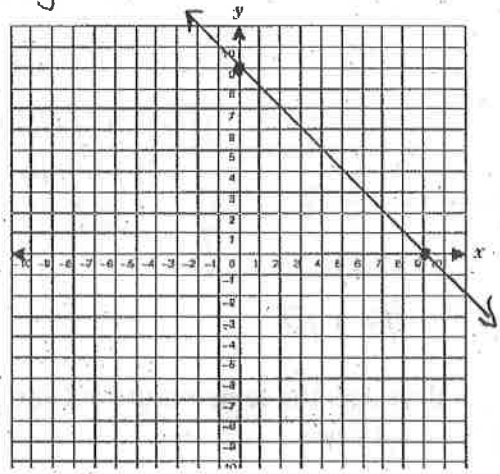
vertical right 6



c) $x + y = 9$

$y = -x + 9$

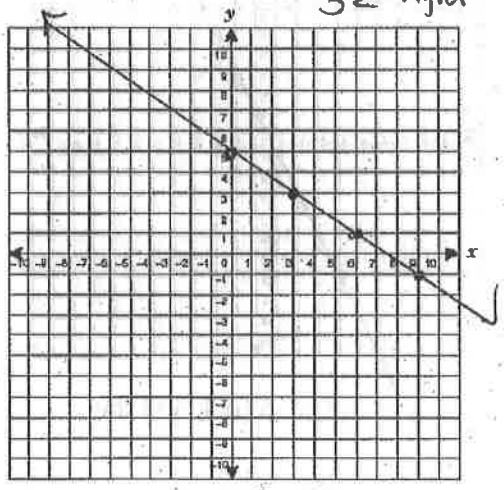
$y = \frac{-1}{1}x + 9$ $b = 9$ $m = \frac{-1}{1}$



5) Graph each equation using the y-intercept and the slope.

a) $y = \frac{-2}{3}x + 5$ $b = 5$

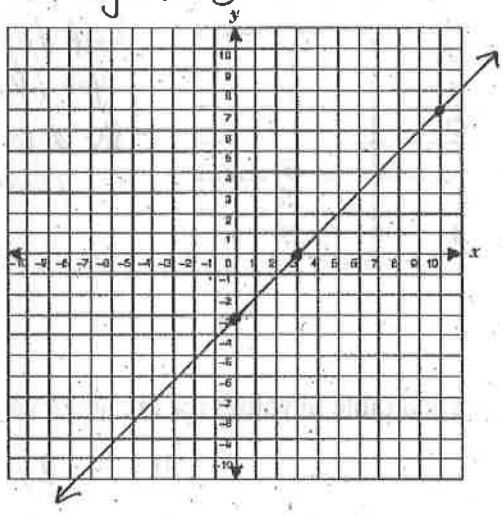
$m = \frac{-2}{3}$ ← down, ← right



b) $2x - 2y = 6$

$\frac{-2y}{-2} = \frac{-2x}{-2} + \frac{6}{-2}$ $y = \frac{1}{1}x - 3$

$y = x - 3$



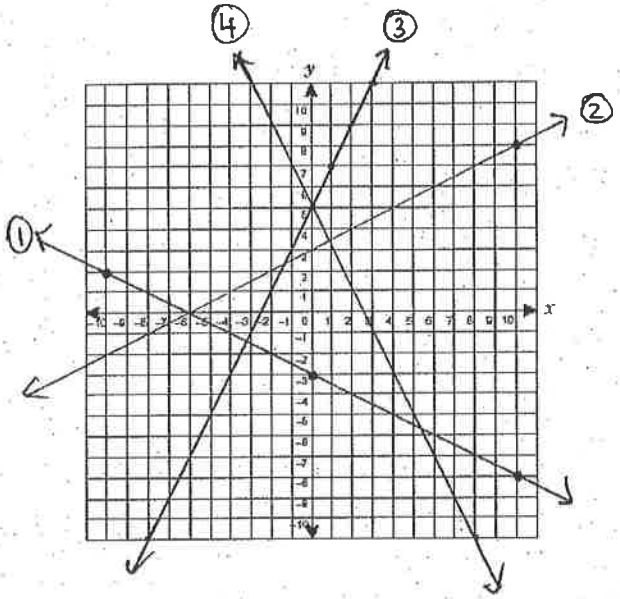
6) Match each equation with the correct graph.

a) $y = 2x + 5$ $b = 5$ $m = \frac{2 \text{ up}}{1 \text{ right}}$ so graph ③

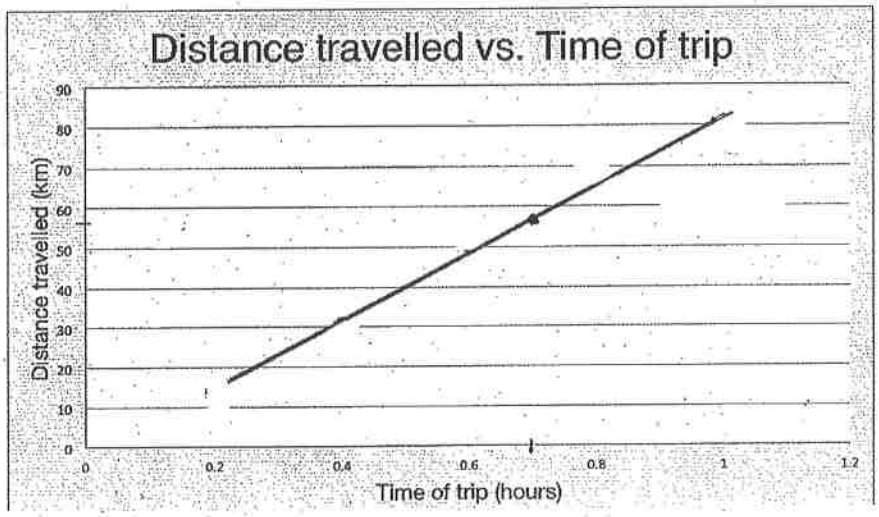
b) $y = -2x + 5$ graph ④

c) $x + 2y = -6$ $2y = -x - 6$ $y = -\frac{1}{2}x - 3$ graph ①

d) $x - 2y = -6$ graph ②



7)



a) How far has the family traveled in 1 hour? 80 km

b) If the linear trend continues, how far can the family get in 8 hours? 640 km

c) Did you use interpolation or extrapolation for part b? extrapolation

d) Estimate how far the family traveled in 0.7 hours? 57 km

e) In part d, did you use interpolation or extrapolation? interpolation