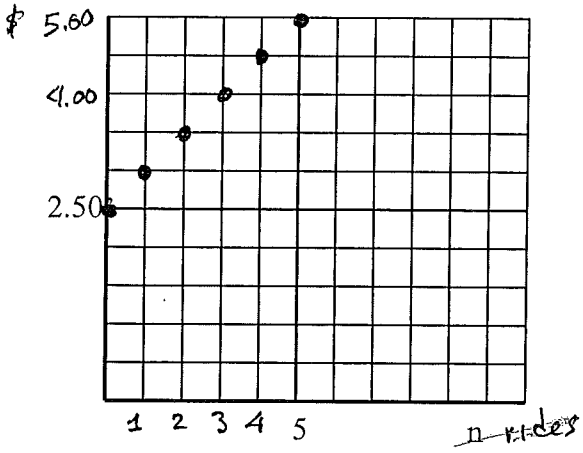
Math 9 Ch 5 Check Up Name: Key

1. A taxi charges $ 0.50/km plus a flat fee of $2.50. If n represents the number of kilometers, and C represents his total cost of the ride, determine the equation relating the total charges to the number of kilometers and graph

n	C
0	2.50
1	3.00
2	3.50
3	4.00
4	4.50
5	5.00



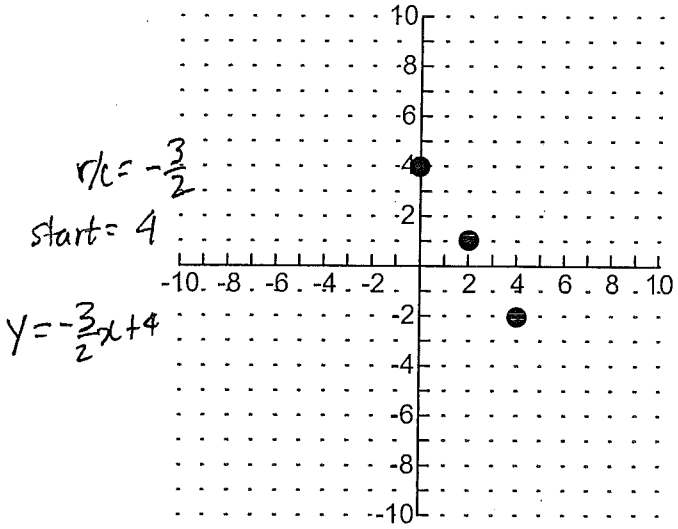
2. Determine the rate of change, start #, and equation for the following.

x	3	6	9
y	7	9	11

a) r/c = 2/3

b) start # = 5

c) $y = \frac{2}{3}x + 5$

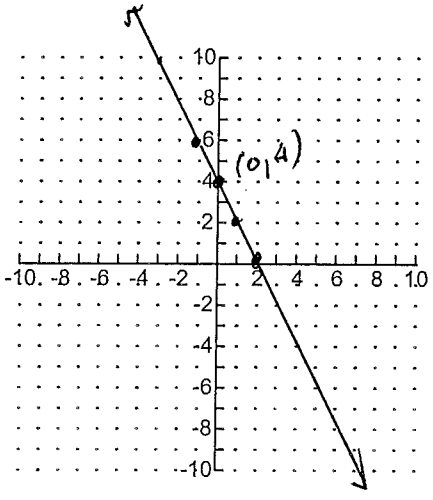


3. Determine the rate of change and starting number for the relation $y = -3x + 7$. r/c = -3

4. Graph and label $y = -2x + 4$ using a table of values

start # = 7

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



5. Solve the following equations

a) $2(3x-1)+4x=5x+6$

$6x-2+4x=5x+6$

$10x-2=5x+6$

$5x=8$

$x=8/5$

b) $\frac{x}{4}+\frac{2}{3}=2$

$12\left(\frac{x}{4}+\frac{2}{3}=2\right)$

$3x+8=24$

$3x=16$

$x=16/3$

c) $\left(\frac{x-1}{2}+\frac{3}{2}=5\right)\times 2$

$x-1+3=10$

$x+2=10$

$x=8$

6. Helen is 3 older than twice Keith's age. In 5 years the sum of their ages will be 49. Create and solve an equation. Determine their ages now

$(k+5)+(2k+8)=49$

$3k+13=49$

$3k=36$

$k=12$

Keith is 12

Helen is ~~37~~ 27

	NOW	in 5 yrs
Keith	k	$k+5$
Helen	$2k+3$	$2k+8$
Total		49

$(2k+3)+5$

7. The length of a rectangle is 1 cm less than twice the width. If the perimeter is 82 cm, write, solve an equation and determine the dimensions

$2(2w-1)+2w=82$

$4w-2+2w=82$

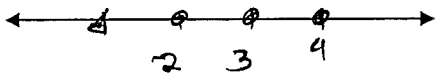
$6w-2=82$

27cm by 14cm

8. Solve and graph the following inequalities.

a) $3x-1\le 11$, for integers

$x\le 4$

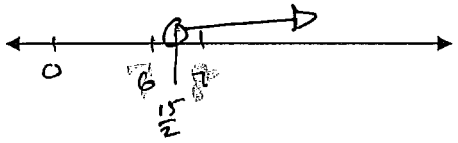


b) $\left(\frac{2a}{5}+4>7\right)\times 5$ for rational numbers

$2a+20>35$

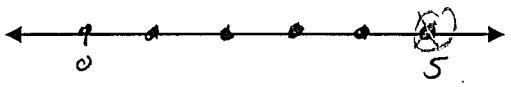
$2a>15$

$a>7.5$

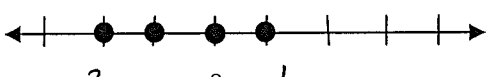


c) $-2x>-10$, for whole numbers

$x<5$



9. Identify two possible inequality sentences for the following graph, for integers



a) $-2\le x\le 1$ or

b) $-3<x<2$ or

c) $-2\le x<2$ or

d) $-3<x\le 1$