Form 3

Chapter 9: Straight Lines

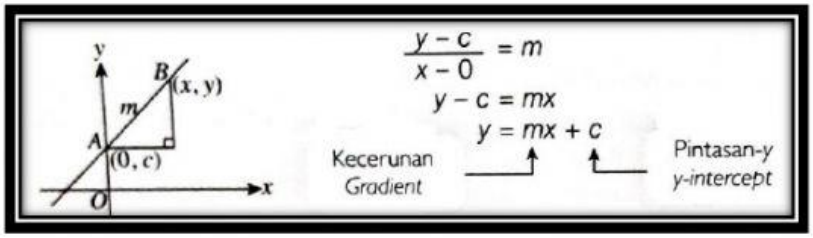
TEACHER' NAME:

NAME:

CLASS:

9.1 STRAIGHT LINES

NOTES



1. **State the gradient, *m* , and *y*-intercept off the following equations.**
   Write the answers in numerical form and without spacing.

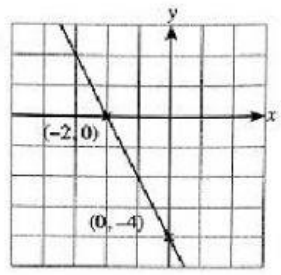
Straight line $y = 3x - 4$	Gradient, m =	y-intercept =
Straight line $y = -x + 5$	Gradient, m =	y –intercept =
Straight line $y = 3 + 6x$	Gradient m =	y –intercept =

2. **Complete the following table.**
   Write equation without spacing.

Gradient, *m*	*y-intercept, c*	Equation of straight line
2	3	
-3	1	
0	4	

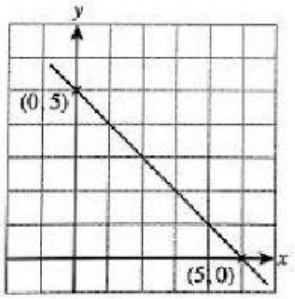
Write the equation of the straight line below. (Write equation without spacing)

a)



Equation of straight line;

b)



Equation of straight line;

3. Express equation in the form of y = mx + c to find the value of m and c.

a) $4x + y = -8$ → Write in the form y =mx + c

Gradient, m =

y-intercept, c =

b) $\frac{x}{2} + \frac{y}{6} = 1$ → Write in the form y =mx + c

Gradient, m =

y-intercept, c =

4. Determine whether point A(2 , 7) lie on the straight line y = 3x + 1.

YES **NO**

5. Point P(-2, k) lies on the line y = 3x + 2. Find the value of *k*.

***k* =**

---------- (Write answers without spacing)

6. **Point Q (h , 3) lies on the straight line y = -2 x +5. Find the value of *h*.**

***h* =**

_____ (Write answer)

7. **Determine whether staright line below is parallel or not.**

$y = 2x$ **and** $2y = 4x - 7$

Gradient, m_1 = **Gradient, m_2 =**

Hence, both straight lines are **PARALLEL** **NOT PARALLEL**

8. **Determine whether staright line below is parallel or not.**

$2x + y = 9$ **and** $2y = 3 - 6x$

Gradient, m_1 = **Gradient, m_2 =**

Hence, both straight lines are **PARALLEL** **NOT PARALLEL**

9. **Determine the equation which parallel with $y = 3x - 1$ and passing through point (2 , -1)**

Gadient, m =

Substitute in the equation y = mx + c .

[ ] = [ ] [ ] [ ] + c

c = [ ]

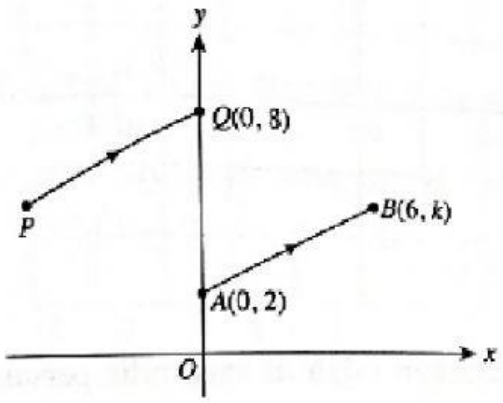
So,the equation of straight line is _____

(Write equation without spacing)

10. Find the point of intersection between line $2x + y = 3$ and $3x - 2y = 1$.

(3 , 2) (1 , 1) (4 , 2) (1 , 5)

11. In the diagram below, AB parallel with PQ. Given the gradient of AB = $\frac{1}{2}$.



Find

a) the value of k

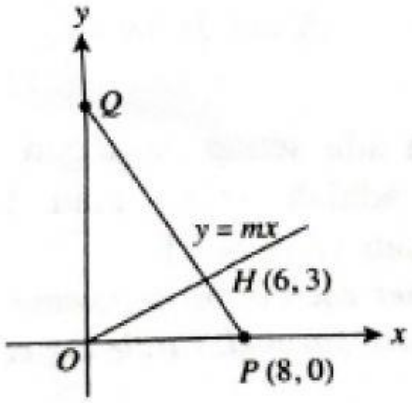
k =

---------- (Write numbers only)

b) equation of straight line PQ

_____ (write equation qithout equation. Example : y = 3/4x+5)

12. in the diagram below,equation of straight line $y = mx$ intersect with line PQ at H.



Find

a) the value of m

m =

_____ (write numbers only)

b) Equation of straight line PQ

_____ (write equation without spacing. Example : y=3/4x+5)