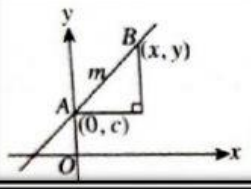
# Form 3

# Chapter 9: Straight Lines

| TEACHER' NAME: | NAME: | CLASS: |
|---|---|---|

## 9.1 STRAIGHT LINES

**NOTES**




$$\frac{y-c}{x-0} = m$$

$$y - c = mx$$

$$y = mx + c$$

Kecerunan
*Gradient*

Pintasan-y
*y-intercept*

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 | |

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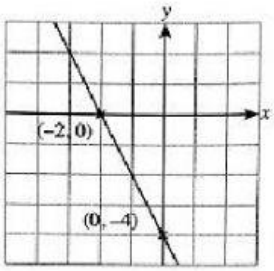
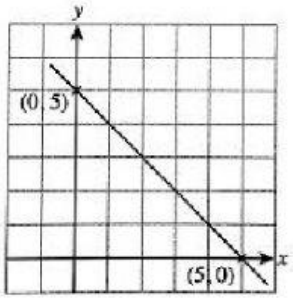
**Write the equation of the straight line below.** (Write equation without spacing)

**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)

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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)

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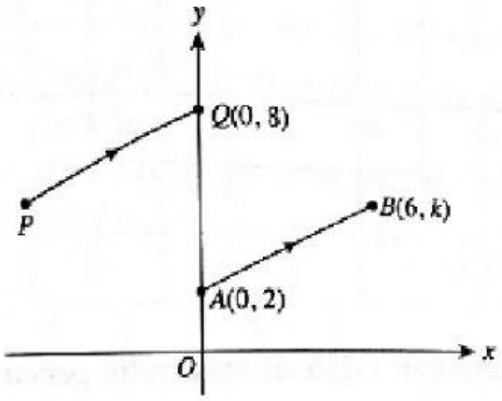
10. Find the point of intersection between line $2x + y = 3$ and $3x - 2y = 1$.

(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)

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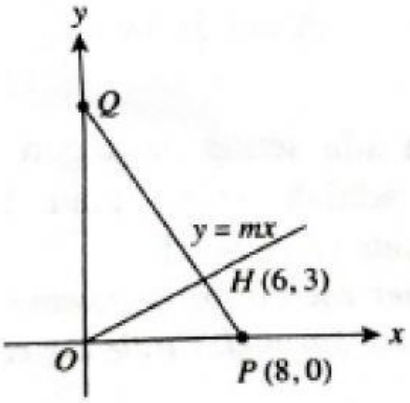
12. in the diagram below,equation of straight line $y = mx$ intersect with line PQ at H.




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)

LIVEWORKSHEETS