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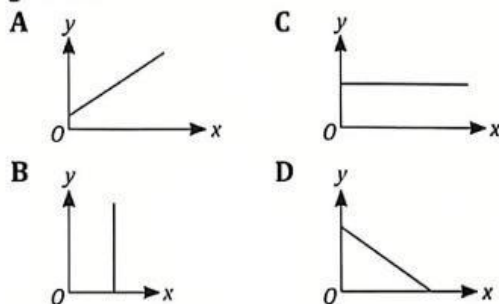
9 Garis Lurus Straight Lines

Bahagian A

9.1 Garis Lurus Straight Lines

- 1 Antara graf berikut, yang manakah mempunyai kecerunan positif?

Which of the following graphs has a positive gradient?



- 2 Tentukan kecerunan dan pintasan-x bagi garis lurus $2x + y = 6$.

Determine the gradient and the x-intercept of the straight line $2x + y = 6$.

	Kecerunan Gradient	Pintasan-x x-intercept
A	2	6
B	1	6
C	-1	3
D	-2	3

- 3 Tentukan pintasan-x bagi garis lurus $3x + 6y + 8 = 0$.

Determine the x-intercept of the straight line $3x + 6y + 8 = 0$.

- A $-\frac{8}{3}$ C $-\frac{3}{4}$
B $-\frac{4}{3}$ D $-\frac{3}{8}$



Tip Cemerlang

Pada pintasan-x, $y = 0$ manakala pada pintasan-y, $x = 0$.
At x-intercept, $y = 0$ whereas at y-intercept, $x = 0$.

- 4 Antara berikut, titik yang manakah terletak pada garis lurus $3x + 3y = 15$?

Which of the following points lies on the straight line $3x + 3y = 15$?

- A $A(-4, 10)$ C $C(-2, 7)$
B $B(-3, 9)$ D $D(4, -4)$

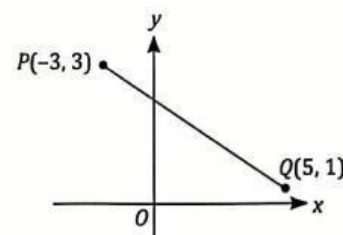
- 5 Tentukan pintasan-y bagi garis lurus $3x - 4y = 12$.

Determine the y-intercept of the straight line $3x - 4y = 12$.

- A -3 C 3
B $-\frac{3}{4}$ D $\frac{3}{4}$

- 6 Rajah 1 menunjukkan garis lurus PQ pada satu satah Cartes.

Diagram 1 shows a straight line PQ on a Cartesian plane.



Rajah 1/ Diagram 1

Cari kecerunan PQ.

Find the gradient of PQ.

- A -4

- B $-\frac{1}{4}$

- C $\frac{1}{4}$

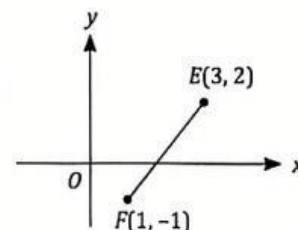
- D 2

Tip Cemerlang

Kecerunan/ Gradient, $m = \frac{y_2 - y_1}{x_2 - x_1}$

- 7 Rajah 2 menunjukkan garis lurus EF pada satu satah Cartes.

Diagram 2 shows a straight line EF on a Cartesian plane.

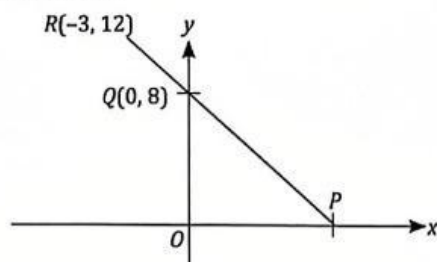


Rajah 2/ Diagram 2

Cari kecerunan EF .
Find the gradient of EF .

- A 3 C 1
B $\frac{3}{2}$ D $-\frac{1}{2}$

- 8 Rajah 3 menunjukkan garis lurus PQR yang dilukis pada satu satah Cartes.
Diagram 3 shows a straight line PQR drawn on a Cartesian plane.

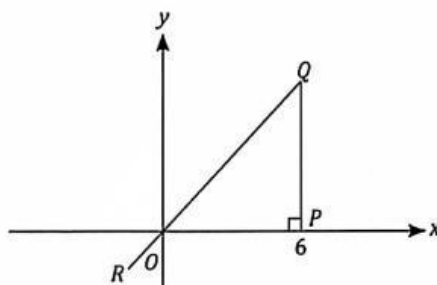


Rajah 3/ Diagram 3

Cari pintasan- x bagi garis lurus PQR .
Find the x -intercept of the straight line PQR .

- A $\frac{4}{3}$ C 6
B 4 D 12

- 9 Dalam Rajah 4, QR ialah garis lurus dan jarak OQ ialah 10 unit.
In Diagram 4, QR is a straight line and the distance of OQ is 10 units.



Rajah 4/ Diagram 4

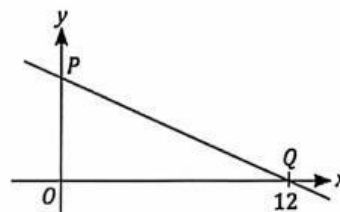
Cari kecerunan QR .
Find the gradient of QR .

- A $\frac{3}{4}$ C $\frac{4}{3}$
B $\frac{3}{5}$ D $\frac{4}{5}$

- 10 Titik $K(3, 2a)$ terletak di atas garis lurus $4x - 3y = 27$. Cari nilai a .
Point $K(3, 2a)$ lies on the straight line $4x - 3y = 27$. Find the value of a .

- A $-\frac{5}{2}$ C $\frac{3}{4}$
B $-\frac{7}{2}$ D $\frac{9}{5}$

- 11 Rajah 5 menunjukkan garis lurus PQ yang dilukis pada satu satah Cartes.
Diagram 5 shows a straight line PQ drawn on a Cartesian plane.



Rajah 5/ Diagram 5

Jika jarak PQ ialah 13 unit, cari kecerunan PQ .
If the distance of PQ is 13 units, find the gradient of PQ .

- A $-\frac{5}{13}$ C $-\frac{12}{13}$
B $-\frac{5}{12}$ D $-\frac{12}{5}$

Tip Cemerlang

$$m = -\frac{\text{pintasan-}y/\text{y-intercept}}{\text{pintasan-}x/\text{x-intercept}}$$

- 12 Diberi persamaan suatu garis lurus ialah $y = -3x + c$. Garis lurus itu melalui titik $(0, 12)$. Cari titik persilangan garis itu dengan paksi- x .
Given the equation of a straight line is $y = -3x + c$. The straight line passes through point $(0, 12)$. Find the point of intersection of the straight line with the x -axis. (KBAT)

- A $(36, 0)$
B $(4, 0)$
C $(-4, 0)$
D $(-36, 0)$

- 13 Cari nilai q jika $y = 3x - 5$ adalah selari dengan $2qx - y = 4$.
Find the value of q if $y = 3x - 5$ is parallel to $2qx - y = 4$.

- A 6 C $\frac{3}{2}$
B 3 D $\frac{2}{3}$

Tip Cemerlang

Dua garis lurus yang selari mempunyai kecerunan yang sama.
Two parallel straight lines have the same gradient.