

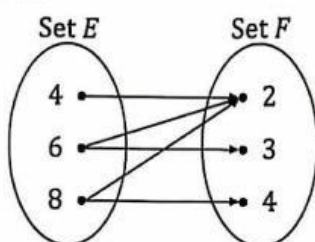
Bab 8 Graf Fungsi

Graphs of Functions

Bahagian A

- 1 Rajah berikut menunjukkan hubungan antara set E dan set F .

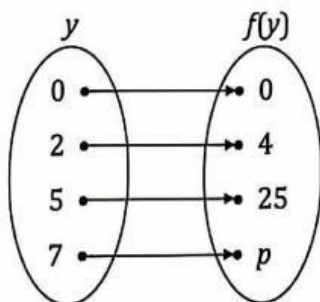
The following diagram shows the relation between set E and set F .



Apakah jenis hubungan tersebut?
What is the type of relation?

- A Satu kepada satu
One-to-one
- B Banyak kepada satu
Many-to-one
- C Satu kepada banyak
One-to-many
- D Banyak kepada banyak
Many-to-many

- 2 Rajah berikut menunjukkan satu fungsi.
The following diagram shows a function.



Cari nilai p .
Find the value of p .

- A 64
- B 56
- C 49
- D 35

- 3 Diberi fungsi $f(x) = 2x^2$, $0 < x \leq 5$. Antara berikut, yang manakah **bukan** imej bagi fungsi itu?

Given the function $f(x) = 2x^2$, $0 < x \leq 5$. Which of the following is **not** an image of the function?

- A 0
- B 8
- C 18
- D 32

- 4 Diberi fungsi $f(x) = 3x^2 + 5x$. Antara berikut, yang manakah adalah betul?

Given the function $f(x) = 3x^2 + 5x$. Which of the following is correct?

	x	$f(x)$
A	5	80
B	8	197
C	10	350
D	12	96

- 5 Jadual berikut ialah jadual nilai bagi fungsi $y = 3x^2 - \frac{5}{x}$, $x \neq 0$.

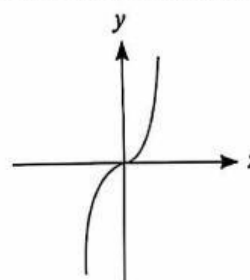
The following table is the table of values for the function $y = 3x^2 - \frac{5}{x}$, $x \neq 0$.

x	-3	-1	2	5
y	2	p	q	$-\frac{22}{25}$

Apakah nilai p dan nilai q ?
What is the values of p and q ?

- A $p = 8$, $q = \frac{7}{4}$
- B $p = 8$, $q = -\frac{7}{4}$
- C $p = 8$, $q = \frac{19}{2}$
- D $p = -8$, $q = \frac{19}{2}$

- 6 Rajah berikut menunjukkan sebuah graf.
The following diagram shows a graph.



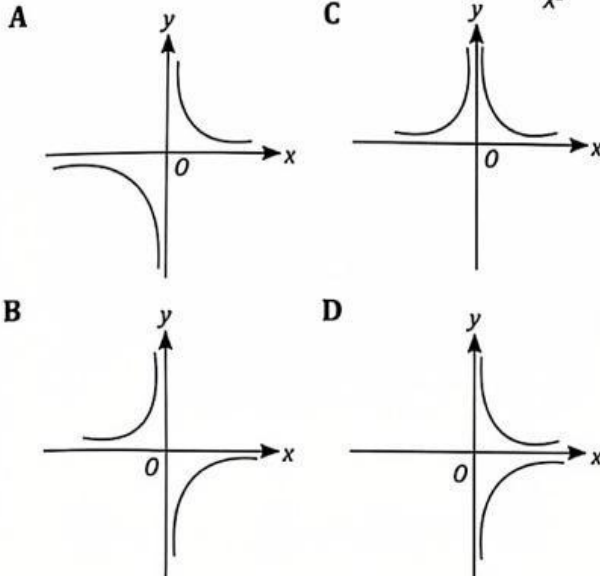
Antara berikut, yang manakah adalah fungsi yang mungkin bagi graf di atas?

Which of the following is the possible function for the graph above?

- A $y = \frac{1}{x}$ C $y = x^2$
B $y = x$ D $y = x^3$

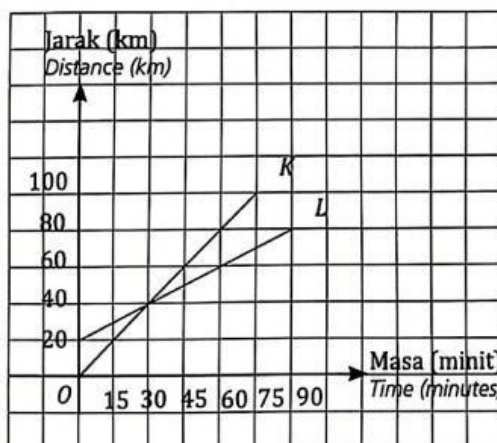
7 Antara graf berikut, yang manakah mewakili $y = \frac{3}{x^2}$?

Which of the following graphs represents $y = \frac{3}{x^2}$?



8 Graf berikut adalah sebuah graf jarak-masa bagi dua buah kereta.

The following diagram shows a distance-time graph for two cars.



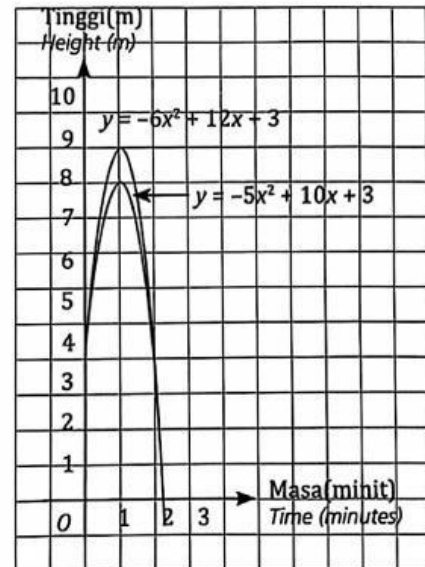
Berdasarkan graf di atas, cari masa, dalam minit, bagi kedua-dua kereta bertemu.

Based on the graph above, find the time, in minutes, of the two cars met.

- A 0
B 30
C 75
D 90

9 Graf berikut menunjukkan fungsi lontaran bola yang dibaling oleh dua orang atlet.

The following graph shows the functions of projectile of the balls thrown by two athletes.



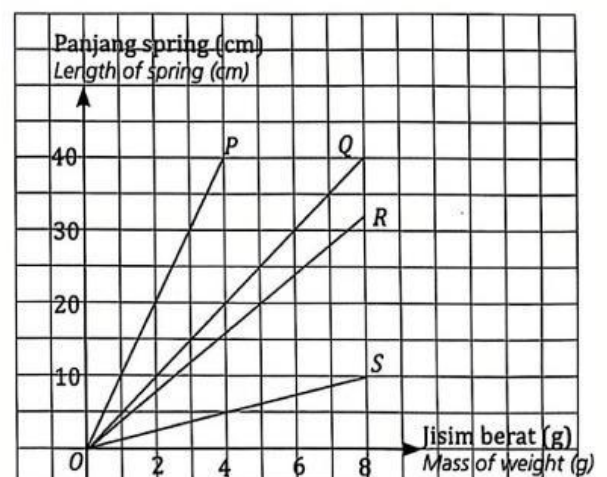
Cari beza tinggi maksimum, dalam m, lontaran bola yang dibaling antara kedua-dua atlet.

Find the difference in the maximum height, in m, of the projectile of balls thrown between the two athletes.

- A 1 C 3
B 2 D 4

10 Graf berikut menunjukkan pemanjangan spring melawan jisim berat yang tergantung padanya.

The following graph shows the elongation of spring against the mass of weight hung on it.



Antara spring berikut, yang manakah paling kuat?

Which of the following springs is the toughest?

- A P
B Q
C R
D S

- 1 Tuliskan jenis hubungan antara set P dan set Q dengan perkataan yang diberi di bawah.
Write the types of relation between set P and set Q with the given words below.

Hubungan satu kepada satu <i>One-to-one relation</i>	Hubungan satu kepada banyak <i>One-to-many relation</i>
Hubungan banyak kepada satu <i>Many-to-one relation</i>	Hubungan banyak kepada banyak <i>Many-to-many relation</i>

[4 markah/ marks]

Jawapan/ Answer:

(a)	(b)	(c)	(d)

- 2 Tandakan (✓) bagi hubungan yang menghasilkan fungsi dan (✗) bagi hubungan yang bukan fungsi.
Mark (✓) for the relations which are functions and (✗) for the relations which are not functions.

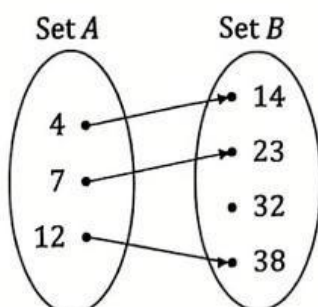
[4 markah/ marks]

Jawapan/ Answer:

(a)	Hubungan satu kepada satu <i>One-to-one relation</i>	
(b)	Hubungan banyak kepada banyak <i>Many-to-many relation</i>	
(c)	Hubungan satu kepada banyak <i>One-to-many relation</i>	
(d)	Hubungan banyak kepada satu <i>Many-to-one relation</i>	

- 3 Rajah berikut menunjukkan hubungan antara set A dan set B .
The following diagram shows the relation between set A and set B .

Lengkapkan jadual berikut.
Complete the following table.



[4 markah/ marks]

Jawapan/ Answer:

Objek/ Object	(a)
Imej/ Image	(b)
Julat fungsi/ Range of function	(c)
Kodomain/ Codomain	(d)