

Section A
Bahagian A
[20 marks/markah]

- 1 Calculate the value of $-1\frac{1}{4} + \frac{1}{2} \div (-\frac{2}{5})$.

Hitung nilai bagi $-1\frac{1}{4} + \frac{1}{2} \div (-\frac{2}{5})$.

- A -2.5
B 1.3
C 2.5
D 4.575

- 2 Determine the number of prime factors for 18.
Tentukan bilangan faktor perdana bagi nombor 18.

- A 1
B 2
C 3
D 4

- 3 Given $\sqrt{3} = a$ and $\sqrt{5} = b$, express $\sqrt{0.15}$ in terms of a and b .

Diberi $\sqrt{3} = a$ dan $\sqrt{5} = b$, ungkapkan $\sqrt{0.15}$ dalam sebutan a dan b .

- A ab
B $10ab$
C $\frac{1}{ab}$
D $\frac{1}{10}ab$

- 4 Given $a : b = 2 : 3$ and $b : c = 2 : 1$. If $a = 12$, find c .

Diberi $a : b = 2 : 3$ dan $b : c = 2 : 1$. Jika $a = 12$, cari c .

- A 9
B 12
C 18
D 24

- 5 Based on Diagram 1 below, find the value of x .

Berdasarkan Rajah 1 di bawah, cari nilai x .

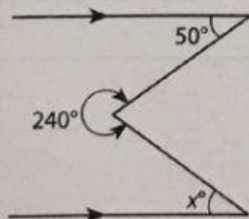


Diagram 1
Rajah 1

- A 30
B 50

- C 70
D 110

- 6 Diagram 2 shows a trapezium PQRS and a right-angled triangle QRS.

Rajah 2 menunjukkan trapezium PQRS dan segi tiga bersudut tegak QRS.

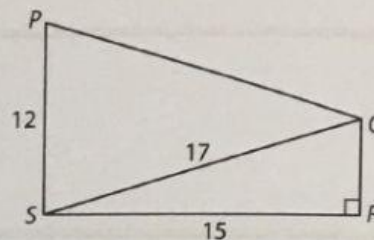


Diagram 2
Rajah 2

Find the area of triangle PQS.

Cari luas segi tiga PQS.

- A 60
B 90
C 150
D 210

- 7 Diagram 3 shows a Venn diagram.

Rajah 3 menunjukkan satu rajah Venn.

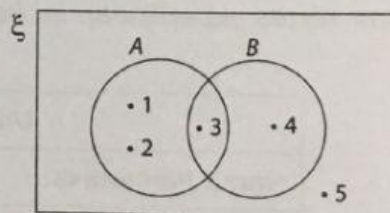


Diagram 3
Rajah 3

List the elements for A' .

Senaraikan unsur bagi A' .

- A 3, 4
B 4, 5
C 3, 4, 5
D 4, 5

- 8 In Diagram 4, the pie chart shows the distribution of number of students in 4 different classes.

Dalam Rajah 4, carta pai menunjukkan taburan bilangan pelajar bagi 4 kelas yang berlainan.

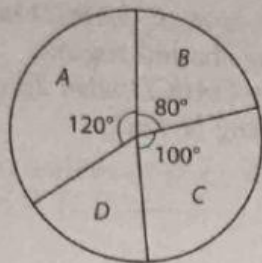


Diagram 4
Rajah 4

If class B has 40 students, find the number of students in class D.

Jika kelas B mempunyai 40 pelajar, cari bilangan pelajar bagi kelas D.

- A 30
- B 40
- C 50
- D 60

- 9 Diagram 5 shows a right-angled triangle ABC. Rajah 5 menunjukkan segi tiga bersudut tegak ABC.

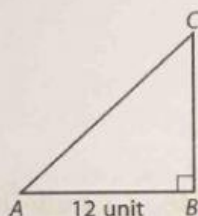


Diagram 5
Rajah 5

Given area of triangle ABC is 30 unit², find AC. Diberi luas segi tiga ABC ialah 30 unit², cari AC.

- A 5 unit
- B 13 unit
- C 18 unit
- D 20 unit

- 10 Simplify $(3x - 1)^2 - (4x - 1)$.
Permudahkan $(3x - 1)^2 - (4x - 1)$.

- A $9x^2 - 6x + 1$
- B $6x^2 - 7x + 2$
- C $9x^2 - 10x + 2$
- D $6x^2 - 10x + 2$

- 11 Factorise completely the expression $\frac{18 - 8p^2}{2}$.

Faktorkan selengkapnya ungkapan $\frac{18 - 8p^2}{2}$.

- A $(3 - 2p)(3 + 2p)$
- B $9 - 4p^2$
- C $3 - 2p$
- D $3 + 2p$

- 12 Express b in terms of P for expression

$$\frac{2p}{\sqrt{3-b}} = \frac{1}{4}$$

Ungkapkan b dalam sebutan P bagi ungkapan

$$\frac{2p}{\sqrt{3-b}} = \frac{1}{4}$$

- A $b = 3 - 8p$
- B $b = 8p - 3$
- C $b = 64p - 3$
- D $b = 3 - 64p^2$

- 13 Diagram 6 shows a circle with centre O . Rajah 6 menunjukkan satu bulatan dengan pusat O .

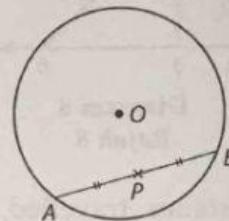


Diagram 6
Rajah 6

Given the area of the circle is 154 unit². P is the midpoint of chord AB and $AB = 10$ unit.

Find PO . (Use $\pi = \frac{22}{7}$)

Diberi luas bulatan ialah 154 unit². P ialah titik tengah AB dan $AB = 10$ unit. Cari PO .

(Guna $\pi = \frac{22}{7}$)

- A $\sqrt{5}$
- B $\sqrt{22}$
- C $\sqrt{24}$
- D $\sqrt{459}$

- 14 Given the distance between $P(x, 0)$ and $Q(0, 5)$ is $\sqrt{125}$, find the value of x .

Diberi jarak di antara $P(x, 0)$ and $Q(0, 5)$ ialah $\sqrt{125}$, cari nilai x .

- A 5
- B 10
- C 12
- D 25

- 15 In Diagram 7, A , B and C are 3 points on a straight line.

Dalam Rajah 7, A , B dan C ialah 3 titik pada satu garis lurus.

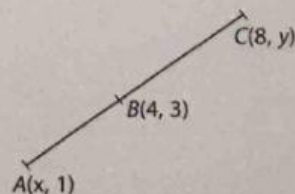


Diagram 7
Rajah 7

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Given $AB = BC$, find the value of x and y .

Diberi $AB = BC$, cari nilai x dan y .

- A $x = -1, y = 8$
 B $x = 1, y = 7$
 C $x = 5, y = 0$
 D $x = 0, y = 5$

- 16 Diagram 8 shows a speed-time graph.

Rajah 8 menunjukkan graf laju-masa.

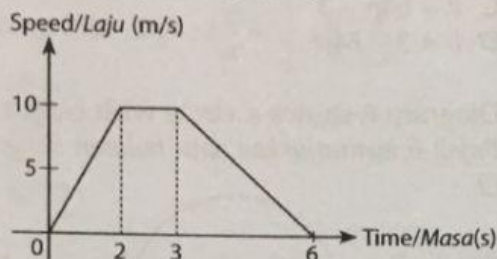


Diagram 8
Rajah 8

Find the distance travelled, in m, in the decelerating situation.

Cari jarak yang dilalui, dalam m, dalam keadaan nyahpecutan.

- A 10 m
 B 15 m
 C 25 m
 D 35 m

- 17 In Diagram 9, $OA'B'C'D'$ is the image of $OABCD$ under enlargement.

Dalam Rajah 9, $OA'B'C'D'$ ialah imej bagi $OABCD$ di bawah pembesaran.

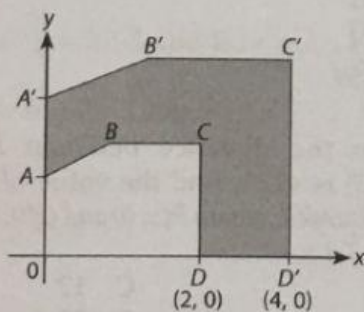


Diagram 9
Rajah 9

Given the area of $OABCD$ is 25 cm^2 , find the area of the shaded region.

Diberi luas $OABCD$ ialah 25 cm^2 , cari luas bagi kawasan yang berlorek.

- A 25
 B 50
 C 75
 D 100

- 18 Given median for the set of data 3, x , 6, 1, 7, 3 is 4, find the value of x .

Diberi median bagi satu set data 3, x , 6, 1, 7, 3 ialah 4, cari nilai x .

- A 3
 B 4
 C 5
 D 7

- 19 Find the value of n in $8^{2n-1} = \frac{1}{2}$.

Cari nilai n dalam $8^{2n-1} = \frac{1}{2}$.

- A 0
 B 2
 C $\frac{1}{2}$
 D $\frac{1}{3}$

- 20 Given the rate of simple interest per year is 4%. Find the number of years required for the savings RM4 000 to increase to RM4 800.

Diberi kadar faedah mudah ialah 4%. Cari bilangan tahun yang dikehendaki untuk simpanan RM4 000 meningkat kepada RM4 800.

- A 2
 B 3
 C 4
 D 5