

ERRATA

Title : Top Class Additional Mathematics Form 4 (2021)
Book Code : IC094131
Author : Chew Su Lian, Norizah Rahmat, Tan Soon Chen

Page number and section	Error	Correction
pg18 topical exercise no.3 (a)	(a) The product of $3x$ and $(x + 2)$ is $(-x + 12)$. Find the values of x . Give your answers correct to three decimal places. <i>Hasil tambah $3x$ dan $(x + 2)$ ialah $(-x + 12)$. Cari nilai-nilai x. Berikan jawapan anda betul kepada tiga tempat perpuluhan.</i>	(a) The product of $3x$ and $(x + 2)$ is $(-x + 12)$. Find the values of x . Give your answers correct to three decimal places. <i>Hasil darab $3x$ dan $(x + 2)$ ialah $(-x + 12)$. Cari nilai-nilai x. Berikan jawapan anda betul kepada tiga tempat perpuluhan.</i>
pg69 topical exercise no.11 Example, (a), (b)	Example The sum of the first n terms of an arithmetic progression is given by $S_n = 3 - 8n$. Find the first term and the common difference. <i>Hasil tambah n sebutan pertama suatu jangjang aritmetik diberi oleh $S_n = 3 - 8n$. Cari sebutan pertama dan beza sepunya.</i> $a = T_1 = S_1 = 3 - 8(1) = -5$ $T_n = S_n - S_{n-1}$ $T_2 = S_2 - S_1$ $= [3 - 8(2)] - (-5)$ $= -8$ $d = T_2 - T_1$ $= -8 - (-5)$ $= -3$	Example The sum of the first n terms of an arithmetic progression is given by $S_n = -\frac{7}{2}n - \frac{3}{2}n^2$. Find the first term and the common difference. <i>Hasil tambah n sebutan pertama suatu jangjang aritmetik diberi oleh $S_n = -\frac{7}{2}n - \frac{3}{2}n^2$. Cari sebutan pertama dan beza sepunya.</i> $a = T_1 = S_1 = -\frac{7}{2}(1) - \frac{3}{2}(1)^2 = -5$ $T_n = S_n - S_{n-1}$ $T_2 = S_2 - S_1$ $= [-\frac{7}{2}(2) - \frac{3}{2}(2)^2] - (-5)$ $= -8$ $d = T_2 - T_1$ $= -8 - (-5)$ $= -3$
	(a) The sum of the first n terms of an arithmetic progression is given by $S_n = 1 + 4n^2$. Find the 11 th term. <i>Hasil tambah n sebutan pertama suatu jangjang aritmetik diberi oleh $S_n = 1 + 4n^2$. Cari sebutan ke-11.</i>	(a) The sum of the first n terms of an arithmetic progression is given by $S_n = 4n^2$. Find the 11 th term. <i>Hasil tambah n sebutan pertama suatu jangjang aritmetik diberi oleh $S_n = 4n^2$. Cari sebutan ke-11.</i>
	(b) The sum of the first n terms of an arithmetic progression is given by $S_n = 2 - 5n + n^2$. Find the 5 th term and the common difference. <i>Hasil tambah n sebutan pertama suatu jangjang aritmetik diberi oleh $S_n = 2 - 5n + n^2$. Cari sebutan ke-5 dan beza sepunya.</i>	(b) The sum of the first n terms of an arithmetic progression is given by $S_n = -5n + n^2$. Find the 5 th term and the common difference. <i>Hasil tambah n sebutan pertama suatu jangjang aritmetik diberi oleh $S_n = -5n + n^2$. Cari sebutan ke-5 dan beza sepunya.</i>

pg123
topical
exercise
no.18
Example

Example
The current of a river is flowing parallel to its bank with a velocity of 1.25 km h^{-1} . A swimmer is swimming at 2.5 km h^{-1} perpendicularly to the river bank across the river. Calculate

Arus sungai mengalir selari dengan tebing sungai dengan halaju 1.25 km h^{-1} . Seorang perenang berenang secara berserenjang kepada tebing sungai itu dengan halaju 2.5 km h^{-1} . Hitung

- (i) the magnitude of the resultant velocity of the swimmer in km h^{-1} ,
magnitud halaju paduan perenang itu dalam km h^{-1} ,
- (ii) the time taken, in hour, if the width of the river is 200 m.
masa yang diambil, dalam jam, jika lebar sungai itu ialah 200 m.

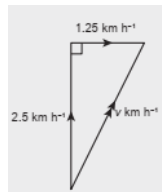
Assuming the direction of the water current is along the positive x -axis and the direction of the swimmer is along the positive y -axis.

The magnitude of the water current
 $= 1.25 \text{ km h}^{-1}$

The magnitude of the swimmer
 $= 2.5 \text{ km h}^{-1}$

Let $v \text{ km h}^{-1}$ represents the resultant velocity of the swimmer.

$$\vec{v} = 1.25 \vec{i} + 2.5 \vec{j}$$



$$(i) |\vec{v}| = \sqrt{1.25^2 + 2.5^2} \\ = 2.795 \text{ km h}^{-1}$$

$$(ii) \text{Time taken / Masa diambil} \\ = \frac{\text{Displacement / Sesaran}}{\text{Velocity / Halaju}} \\ = \frac{0.2}{2.795} \leftarrow \boxed{200 \text{ m} = 0.2 \text{ km}} \\ = 0.07156 \text{ hour / jam}$$

Example

The current of a river is flowing parallel to its bank with a velocity of 1.25 km h^{-1} . A swimmer is swimming at 2.5 km h^{-1} perpendicularly to the river bank across the river. Calculate

Arus sungai mengalir selari dengan tebing sungai dengan halaju 1.25 km h^{-1} . Seorang perenang berenang secara berserenjang kepada tebing sungai itu dengan halaju 2.5 km h^{-1} . Hitung

- (i) the time taken, in hour, if the width of the river is 200 m.
masa yang diambil, dalam jam, jika lebar sungai itu ialah 200 m.
- (ii) the magnitude of the resultant velocity of the swimmer in km h^{-1} ,
magnitud halaju paduan perenang itu dalam km h^{-1} ,

(i) Time taken / Masa diambil

$$= \frac{\text{Displacement / Sesaran}}{\text{Velocity / Halaju}} \\ = \frac{0.2}{2.5} \leftarrow \boxed{200 \text{ m} = 0.2 \text{ km}} \\ = 0.08 \text{ hour / jam}$$

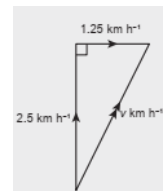
- (ii) Assuming the direction of the water current is along the positive x -axis and the direction of the swimmer is along the positive y -axis.

The magnitude of the water current
 $= 1.25 \text{ km h}^{-1}$

The magnitude of the swimmer
 $= 2.5 \text{ km h}^{-1}$

Let $v \text{ km h}^{-1}$ represents the resultant velocity of the swimmer.

$$\vec{v} = 1.25 \vec{i} + 2.5 \vec{j}$$



$$|\vec{v}| = \sqrt{1.25^2 + 2.5^2} \\ = 2.795 \text{ km h}^{-1}$$