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05IPP17F2030

Subject:

No: Wednesday
Date: 07 . 03 . 2018

Model Exam Paper (Question 3)

Question 1

Find the value of x for the following equations.

a) $(2x-(y+10)) = -5$, given $x = -1$

$2(-1) - y - 10 = -5$
$-2 - y - 10 = -5$
$-12 - y = -5$
$-12 + 12 - y = -5 + 12$
$-y = 7$
$y = -7$

b) $(2x-2y)-(-y-4) = -5$, given $x = -2$

$(2(-2)-2y)-(y-4) = -5$
$-4 - 2y + y + 4 = -5$
$-y = -5$
$y = 5$

Question 2

Solve the simultaneous linear equation by using the elimination method

$y = x - 1$ — ①
$y = 9 - 4x$ — ②

Elimination Method,

$y = x - 1$
$-) \quad y = -4x + 9$
$0 = 5x - 10$
$0 + 10 = 5x - 10 + 10$
$\frac{10}{5} = \frac{5x}{5}$
$x = 2$

When $x = 2$, into ①

$y = 2 - 1$
$y = 1$

$\therefore x = 2, y = 1$

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Question 3

Find the simple interest and total amount after three years for a total of deposit RM 2600 in a bank with a simple interest rate of 12 % per annum.

P = 2600

R = 12 %

T = 3

$I = \frac{2600 \times 12 \times 3}{100}$

So, interest is RM 936

Total = 2600 + 936

= RM 3536

So, the total amount after three years is RM 3 536

Question 4

RM 7300 is deposited into a bank account by John with the annual interest rate of 7% and compounded once a year. Find the amount he will have after 3 years.

Year 1 : RM 7300 × 7 % = RM 511 — Total is now RM 7811

Year 2 : RM 7811 × 7% = RM 546.77 — Total is now RM 8357.77

Year 3 : RM 8357.77 × 7% = RM 585.0439 — Total is now RM 8942.8139

$A = P(1 + r)^t$

A = RM 7300

P = 1

r = 0.07

t = 3

Compound Interest = $7300 (1 + 0.07)^3$ = 8942.8139

= RM 8942.8139

8942.80