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Question 1 In each case, make x the subject of the formula. Simplify your answer if possible.

a. $P = \frac{x}{2} + m$

$$P - m = \frac{x}{2} + m - m$$

$$2(P - m) = \frac{x}{2} (x)$$

$$x = 2(P - m)$$

b. $K = \frac{1}{2} 2x^2$

$$2K = \frac{1}{2} \times 2 \times 2x^2$$

$$2K = 2x^2$$

$$\frac{2K}{2} = \frac{2x^2}{2}$$

$$K = x^2$$

$$x = \sqrt{\frac{2K}{2}}$$

2

Question 2 solve the equations

a. $\frac{5}{2x+6} = \frac{2}{2x+6}$

$$5(2x+6) = 2(2x+6)$$

$$10x+30 = 2x+12$$

$$10x-2x+30 = 2x-2x+12$$

$$8x+30 = 12$$

$$8x+30-30 = 12-30$$

$$8x = -18$$

$$\frac{8x}{8} = \frac{-18}{8}$$

$$x = \frac{-9}{4}$$

2

Question 3

A bank offers a simple interest rate 5% per annum. John deposits RM15000 in the bank calculate the interest that he will receive after five years.

Year 1

$$= \frac{5}{100} \times \text{RM}15000$$

$$= \frac{75000}{100}$$

$$= \text{RM}750$$

Year 2

$$= \frac{5}{100} \times \text{RM}15000 + \text{RM}750$$

$$= \frac{78750}{100}$$

$$= \text{RM}787.5$$

Year 3

$$= \frac{5}{100} \times \text{RM}15000 + \text{RM}787.5$$

$$= \frac{15787.5}{100}$$

$$= \text{RM}157.87$$

Year 4

$$= \frac{5}{100} \times \text{RM}15000 + \text{RM}157.87$$

Year 5

$$= \frac{5}{100} \times \text{RM}15000 + \text{RM}157.87$$

Interest:

$$= \text{RM}750 + \text{RM}787.50 + \text{RM}157.87$$

No:

Date:

Question 4

RM5000 is deposited into a bank account by Pete with the annual interest rate of 4% and compounded once a year. Calculate the amount he will have after three years.

Year 1	Year 2	Year 3	Amount
$= \frac{4}{100} \times \text{RM}5000$	$= \frac{4}{100} \times \text{RM}5000 + \text{RM}200$	$= \frac{4}{100} \times \text{RM}5000 + \text{RM}208.00$	
$= \frac{20000}{100}$	$= \frac{20200}{100}$	$= \frac{20332}{100}$	
$= \text{RM}200$	$= \text{RM}208.00$	$= \text{RM}208.32$	$= \text{RM}616.32$

Question 5

Solve the simultaneous linear equation by using elimination method.

$$(2x + 3y - 13 = 0) \quad \times 3$$

$$(3x - y - 3 = 0) \quad \times 2$$

$$6x + 9y - 39 = 0 \quad \text{--- (1)}$$

$$(-) \quad 6x + 2y - 6 = 0 \quad \text{--- (2)}$$

$$11y - 33 = 0$$

$$11y - 33 + 33 = 0 + 33$$

$$11y = 33$$

$$y = 3$$

$$y = 3$$

$$y = 3 \text{ into (1)}$$

$$6x + 9y - 39 = 0$$

$$6x + 9(3) - 39 = 0$$

$$6x + 27 - 39 = 0$$

$$6x - 12 = 0$$

$$6x - 12 + 12 = 0 + 12$$

$$6x = 12$$

$$x = 2$$

$$x = 2$$

NO.

DATE:

End of chapter 1

Question 1

In each case, make x the subject of the formula and simplify your answer if possible.

a) $P = \frac{x}{2} + m$

b) $k = \frac{1}{2} x^2$

$$P - m = \frac{x}{2} + m - m$$

$$(2)k = \frac{1}{2} (2) x^2$$

$$2 \times P - m = \frac{x}{2} \times 2$$

$$\frac{2k}{2} = \frac{7x^2}{2}$$

$$x = (P - m) \times 2$$

$$\frac{2k}{2} = x^2$$

$$x^2 = \frac{2k}{2}$$

$$x = \sqrt{\frac{2k}{2}}$$

Question 2

Solve the Equation.

$$\frac{5}{2x+6} = \frac{2}{2x+6}$$

$$5(2x+6) = 2(2x+6)$$

$$(10x+30) = (4x+12)$$

$$10x+30-12 = 4x+12-12$$

$$10x - 10x + 18 = 4x - 10x$$

$$18 = -6x$$

$$\frac{18}{-6} = \frac{-6x}{-6}$$

$$-3 = x$$

NO.

DATE:

Question 3

A bank offers a simple interest rate of 5% per annum. John deposits RM15000 in the bank. Calculate the interest that he will receive after five years.

$$RM15000 = 5\% (5 \text{ years})$$

$$RM15000 \times \frac{5}{100}$$

2

750

150

750 x 5 years

x 5

x 5

3750

750

= RM3,750

for 5 years.

(interest)

2

Question 4

RM5000 is deposited into a bank account by Pete with the annual interest rate of 4% and compounded once a year. Calculate the amount he will have after three years.

$$P = RM5000$$

$$R = 4\%$$

$$T = 3 \text{ years}$$

$$RM5000 \times \frac{4}{100}$$

$$RM50$$

$$\frac{4}{100}$$

$$RM200$$

$$RM5200$$

$$4$$

$$RM5200 \times \frac{4}{100}$$

$$RM208$$

$$\text{year 1} = RM5000 \times 4\% = RM200$$

$$\text{year 2} = RM5200 \times 4\% = RM208$$

$$\text{year 3} = RM5408 \times 4\% = RM216.32$$

$$RM5624.32$$

$$RM5624.32 \sim \text{after 3 years}$$

2

Question 5

Solve the simultaneous linear equation by using elimination method.

$$2x + 3y - 13 = 0$$

$$(3) 3x - y - 3 = 0$$

$$\cdot 9x - 3y - 9 = 0$$

$$2x + 3y - 13 = 0 \text{ Eq (1)}$$

$$(4) 9x - 3y - 9 = 0 \text{ Eq (2)}$$

$$11x = 22$$

$$\frac{11x}{11} = \frac{22}{11}$$

$$x = \frac{22}{11}$$

$$x = 2$$

$$x = 2$$

$$y = 3$$

$$\text{Equation (1)} \quad x = 2$$

$$2x + 3y - 13 = 0$$

$$2(2) + 3y - 13 + 13 = 0 + 13$$

$$4 + 3y = 13$$

$$4 - 4 + 3y = 13 - 4$$

$$\frac{3y}{3} = \frac{9}{3}$$

$$y = 3$$

$$(2)$$

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Program / Section: IPP1

Coursework Assessment: End of chapter 1

Course Name: PBM 1035 ~~Math~~ Intensive Mathematics

Good

Question 1

In each case, make x the subject of the formula. Simplify your answers if possible.

(a) $P = \frac{x}{2} + m$

$$P - m = \frac{x}{2} + m - m$$

$$(P - m) = \frac{x}{2} \times (2)$$

$$2(P - m) = x$$

$$x = 2(P - m)$$

(b) $k = \frac{1}{2} z x^2$

$$2k = \frac{1}{2} (2) x y^2 \quad 2k = \frac{1}{2} (2) z x^2$$

$$\frac{2k}{y^2} = \frac{z x^2}{y^2}$$

$$\frac{2k}{z} = \frac{z x^2}{z}$$

$$\frac{2k}{y^2} = x$$

$$\frac{2k}{z} = x^2$$

$$\frac{x}{y^2} = \frac{2k}{z}$$

$$x = \sqrt{\frac{2k}{z}}$$

2

Question 2

Solve the equations

$$\frac{5}{x+6} = \frac{2}{2x+6}$$

$$x + 6(2) = 5(2x + 6)$$

$$2x + 12 = 10x + 30$$

$$2x - 10x + 12 - 12 = 10x - 10x + 30 - 12$$

$$-8x = 18$$

$$\frac{-8x}{-8} = \frac{18}{-8} \frac{9}{4}$$

$$x = -\frac{9}{4}$$

$$x = -2\frac{1}{4}$$

$$I = \frac{Pkt}{100}$$

I = Interest (利息) T = Year

P = Principal (资本)

R / k = Percentage

Question 3

A bank offers a (simple interest) rate of 5% per annum. John deposits RM15000 in the bank. Calculate the interest that will receive after five years.

$$\textcircled{1} 15000 \times \frac{5}{100} = 750$$

$$\textcircled{2} 15750 \times \frac{5}{100} = 787.5$$

$$\textcircled{3} 16537.5 \times \frac{5}{100} = 826.9$$

$$\textcircled{4} 17364.4 \times \frac{5}{100} = 868.2$$

$$\textcircled{5} 18232.6 \times \frac{5}{100} = 911.6$$

$$I = \frac{Pkt}{100}$$

$$I = \frac{15000 \times 5 \times 5}{100}$$

$$= \frac{375000}{100}$$

$$= 3750$$

Deposits + Interest

$$\text{RM}15000 + \text{RM}3750$$

$$= \text{RM}18750$$

2

Question 4

RM5000 is deposited into a bank account by Pete with the annual interest rate of 4% and compounded once a year. Calculate the amount he will have after three years.

$$(1 \text{ years}) - \text{RM}5000 \times \frac{4}{100} = 200 \text{ RM}200$$

$$(2 \text{ years}) \text{ RM}5200 \times \frac{4}{100} = \text{RM}208$$

$$(3 \text{ years}) \text{ RM}5408 \times \frac{4}{100} = \text{RM}216.3$$

$$\begin{aligned} 3 \text{ years} &= \text{RM}200 + \text{RM}208 + \text{RM}216.3 \\ &= \text{RM}624.3 \end{aligned}$$

$$\begin{aligned} \text{Deposited} + 3 \text{ years} &= \text{RM}5000 + \text{RM}624.3 \\ &= \text{RM}5624.3 \end{aligned}$$

Question 5

Solve the simultaneous linear equation by using elimination method.

$$2x + 3y - 13 = 0$$

$$3x - y - 3 = 0$$

$$2x + 3y - 13 = 0$$

$$\times 3) \quad 3x - y - 3 = 0$$

$$9x - 3y - 9 = 0$$

$$\begin{array}{r} x \quad y \\ 2x + 3y = -13 \\ - 9x - 3y = -9 \\ \hline 11x = 22 \end{array}$$

$$11x = 22$$

$$\frac{11x}{11} = \frac{22}{11}$$

$$x = 2$$

$$\begin{array}{r} 3x - y - 3 \\ \times \quad 3 \\ \hline 9x - 3y - 9 \end{array}$$

$$2(2) + 3y - 13 = 0$$

$$4 + 3y - 13 + 13 = 13$$

$$4 - 4 + 3y = 13 - 4$$

$$3y = 9$$

$$\frac{3y}{3} = \frac{9}{3}$$

$$y = 3$$