1. Augustine
2. Clarinda.
3. Nur Iyazi
4. Celestina

KEMENTERIA PENDIDIKAN MALAYSIA — POLITEKNIK MALAYSIA — JABATAN MATEMATIK, SAINS DAN KOMPUTER		COURSE CODE/ COURSE NAME		PBM1035 INTENSIVE MATHEMATICS	
		COURSEWORK ASSESSMENT		TUTORIAL 1	
		SESSION		DECEMBER 2018	
		DURATION	60 MINS	CLO1	10 MARKS
				CLO2	
				CLO3	
NAME	Augustine	TOTAL MARKS		10 MARKS	
REGISTRATION NO.	0SIPP18F2025				
PROGRAMME/ SECTION	IPP1				

Instructions
- Answer ALL questions. Write your answers in the spaces provided.
- Show your working to get marks. You may use a non-programmable scientific calculator.

Question 1

[2 marks]

CLO1, C1

(a) Given the expression $3x^2 + 5xy - 10$. Identify the total variable term(s) and constant term(s) in this expression.

[2 marks]

CLO1, C2

(b) Simplify the expression $3(x + y)^2 - 2x(4y - 5x)$

Question 2

[3 marks]

CLO1, C2

Simplify the polynomial $3x^2(2x^2 + 2x + 1) - (x^4 - 2x^3 - 2x)$.

Question 3

[3 marks]

CLO1, C3

Use polynomial division to simplify the following.

$$\frac{2x^4 + 8x^3 - 5x^2 - 4x + 2}{x^2 + 4x - 2}$$

How many

1) a) $3x^2 + 5xy - 10$

i) Variable terms $= 3x^2 + 5xy$?

ii) Constant terms $= -10$ (1)

b) $3(x+y)^2 - 2x(4y - 5x)$

$= 3(x+y)(x+y) - 2x(4y - 5x)$

$= 3(x^2 + xy + xy + y^2) - 8xy + 10x^2$

$= 3x^2 + 3xy + 3xy + 3y^2 - 8xy + 10x^2$ (2)

$= 10x^2 + 3x^2 + 3xy + 3xy - 8xy + 3y^2$

$= 13x^2 - 2xy + 3y^2$ ✓

2) $3x^2(2x^2 + 2x + 1) - (x^4 - 2x^3 - 2x)$

$= 6x^4 + 6x^3 + 3x^2 - x^4 + 2x^3 + 2x$

$= 6x^4 - x^4 + 6x^3 + 2x^3 + 3x^2 + 2x$

$= -5x^4 + 8x^3 + 3x^2 + 2x$ (2)

Q3

$$x^2+4x-2 \;\overline{)\; 2x^4+8x^3-5x^2-4x+2}$$

$2x^2-1$

$-(2x^4+8x^3-4x^2)$

$-x^2-4x+2$

$-(-x^2-4x+2)$

$-$

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