

No.:

Date:

Question 1

$$a \quad -59 - (39 + 3)$$

$$= -59 - 39 - 3$$

$$= -89 - 3$$

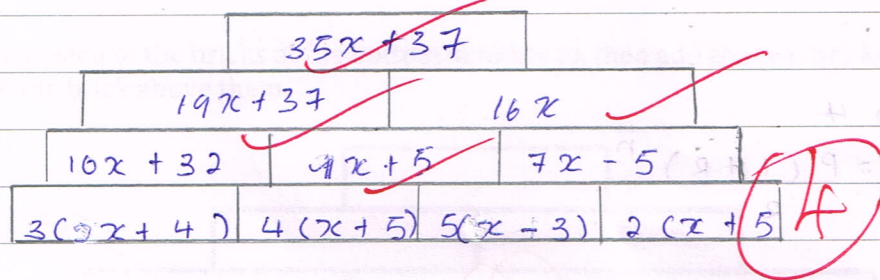
$$b \quad 2n(-10n + 5) - 7(6 - 10n)$$

$$= -20n^2 + 10n - 42 + 70n$$

$$= -20n^2 + 10n + 70n - 42$$

$$= -20n^2 + 80n - 42$$

Question 2



$$3(2x + 4)$$

$$= 6x + 12$$

$$4x + 20 + 5x - 15$$

$$= 4x + 5x + 20 - 15$$

$$= 9x + 5$$

$$4(x + 5)$$

$$= 4x + 20$$

$$10x + 32 + 9x + 5$$

$$= 10x + 9x + 32 + 5$$

$$5(x - 3)$$

$$= 5x - 15$$

$$= 19x + 37$$

$$9x + 5 + 7x - 5$$

$$2(x + 5)$$

$$= 2x + 10$$

$$= 9x + 7x + 5 - 5$$

$$= 16x$$

$$= 19x + 37 + 16x$$

$$= 19x + 16x + 37$$

$$= 35x + 37$$

Question 3

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

$$3x - y = -x + 2y + 5$$

$$3(1) - y = -1 + 2y + 5$$

$$3 - y = -1 + 2y + 5$$

$$3 - y = -1 + 2y - 2y + 5$$

$$3 - 2y - y = -1 + 5$$

$$3 - 3y = -1 + 5 - 3$$

$$\frac{-3y}{-3} = \frac{1}{-3}$$

$$y = -\frac{1}{3}$$

4

Question 4

$$PV = \frac{P(1+R)^{-n}}{R}$$

$$PV = \frac{1000(1+0.025)^{-40}}{0.025}$$

$$= \frac{1000}{0.025}$$

$$= \frac{1000(0.22729)}{0.025}$$

$$= \frac{227.29}{0.025}$$

$$= 9091.6$$

$$= 8442.16$$

Question 1

(a) $-5g - (3g + 3)$

$= -5g - 3g - 3$

$= -8g - 3$

2

(b) $2n(-10n + 5) - 7(6 - 10n)$

$= -20n + 10n - 42 + 70n$

$= -20n + 10n + 70n - 42$

$= -20n + 80n - 42$

Question 2

$(35x + 37)$

$(19x + 37)$

$(16x)$

$(10x + 32)$

$(9x + 5)$

$(7x - 5)$

14

$4x + 20$

$+ 5x - 15$

$9x + 5$

$(6x + 12)$

$(4x + 20)$

$(5x - 15)$

$(2x + 10)$

$5x - 15$

$+ 2x + 10$

$7x - 5$

(angular?)

Question 3

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

$3(1) - y = -(1 - 2y) + 5$

$3 - y = -1 + 2y + 5$

$3 - y = 2y + 4$

$3 - y - 2y = 4 - 3$

$3 - 3y = 1$

$3 - 3y = 1 - 3$

$-3y = -2$

$-3y = -2$

$y = \frac{2}{3}$

4

Question 4

$PV = RM4000 \times \frac{1 - (1 + 0.025)^{-60}}{0.025}$

$PV = 4000 \times \frac{0.772716412}{0.025}$

$PV = 4000 \times 30.90865648$

$PV = 123634.6259$

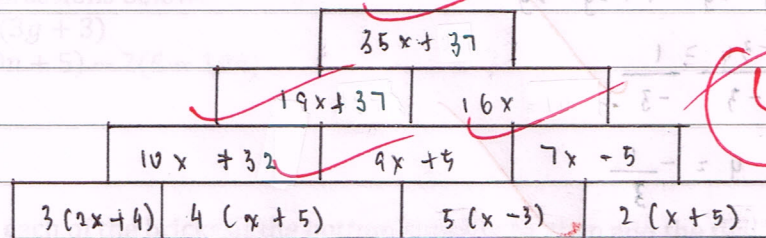
Question 1

$$a) -5g - (3g + 3) = -5g - 3g - 3$$

$$= -8g - 3$$

$$b) 2n(-10n + 5) - 7(6 - 10n) = -20n^2 + 10n - 42 + 70n$$

$$= -20n^2 + 10n + 70n - 42 = -20n^2 + 80n - 42$$

Question 2

$$3(2x + 4) + 4(x + 5) = 6x + 12 + 4x + 20$$

$$= 6x + 4x + 12 + 20$$

$$= 10x + 32$$

$$5(x - 3) + 2(x + 5) = 5x - 15 + 2x + 10$$

$$= 7x - 5$$

$$4(x + 5) + 5(x - 3) = 4x + 20 + 5x - 15$$

$$= 4x + 5x + 20 - 15$$

$$= 9x + 5$$

$$10x + 32 + 9x + 5 = 10x + 9x + 32 + 5$$

$$= 19x + 37$$

$$9x + 5 + 7x - 5 = 9x + 7x + 5 - 5$$

$$= 16x$$

$$19x + 37 + 16x = 19x + 16x + 37$$

$$= 35x + 37$$

Question 3

$$x = 1$$

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

$$3(1) - y = -(1 - 2y) + 5$$

$$3 - y = -1 + 2y + 5$$

$$3 - y = 4 + 2y$$

$$3 - y = 4 + 2y$$

$$3 - 3 - y = 4 - 3 + 2y$$

$$-y = 1 + 2y$$

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

$$-3y = 1$$

$$\frac{-3y}{-3} = \frac{1}{-3}$$

$$y = -\frac{1}{3}$$

Question 4

$$PV = P \times \frac{1 - (1 + R)^{-n}}{R}$$

$$PV = 1000 \times \frac{1 - (1 + 0.025)^{-36}}{0.025}$$

$$PV = 1000 \times \frac{1 - (1.025)^{-36}}{0.025}$$

$$PV = 1000 \times \frac{1 - 0.411093753}{0.025}$$

$$PV = 1000 \times \frac{0.588906247}{0.025}$$

$$PV = 1000 \times 23.55625108$$

$$PV = 23556.25108$$

 KEMENTERIA PENDIDIKAN MALAYSIA		 POLITEKNIK MALAYSIA		COURSE CODE/ COURSE NAME		PBM1035 INTENSIVE MATHEMATICS	
				COURSEWORK ASSESSMENT		TEST 1	
				SESSION		DECEMBER 2018	
				JABATAN MATEMATIK, SAINS DAN KOMPUTER		CLO1	10 MARKS
NAME	Noreizlyn b Mohd Kamil			DURATION	60 MINS	CLO2	9
REGISTRATION NO.	051PP18F2023					CLO3	
PROGRAMME/ SECTION	IPP1						
				TOTAL MARKS		10 MARKS	

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

CLO1, C2

[4 marks]

Simplify the expressions below:

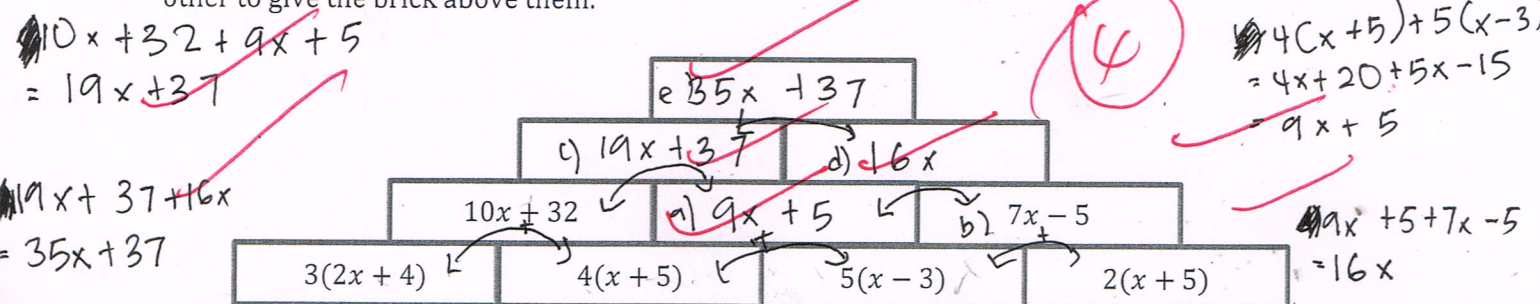
- (a) $-5g - (3g + 3)$
(b) $2n(-10n + 5) - 7(6 - 10n)$

Question 2

CLO1, C2

[4 marks]

Work out what each of the bricks at the bottom simplify to, then add the two bricks next to each other to give the brick above them.



Question 3

CLO1, C2

[4 marks]

Identify the value of y for the following equation given $x = 1$

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

Question 4

CLO1, C3

[3 marks]

You wish to receive an annuity of RM1000 a quarter for 5 years. The quarterly interest rate is 2.5%. What is the present value of the annuity?

Question 1

$$a) -5g - (3g + 3)$$

$$= -5g - 3g - 3$$

$$= -8g - 3$$

(2)

$$b) 2n(-10n + 5) - 7(6 - 10n)$$

$$= -20n^2 + 10n - 42 + 70n$$

$$= -20n^2 + 10n + 70n - 42$$

$$= -20n^2 + 80n - 42$$

(2)

Question 3

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

$$= 3(1) - y = -(1 - 2y) + 5$$

$$= 3 - y = -1 - 2y + 5 + 3$$

$$-y = -1 + 5 + 3 - 2y$$

$$y + y = 9 - 2y + 2y$$

$$2y + y = 9$$

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

$$y = 3$$

(1)

PV:

$$PV = 2.75^{10}$$

$$PV = 24735$$

Question 4

$$PV = 1250$$

$$PV = \frac{55.5 \times 1(1.5 \times 666)^{10}}{100}$$

$$= \frac{55.5 \times 1.5 \times 666^{10}}{100}$$

$$= \frac{55444.5^{10}}{100}$$

6

Question 1

(a) $-59 - (39 + 3)$

$= -59 - 39 - 3$

$= -99 - 3$

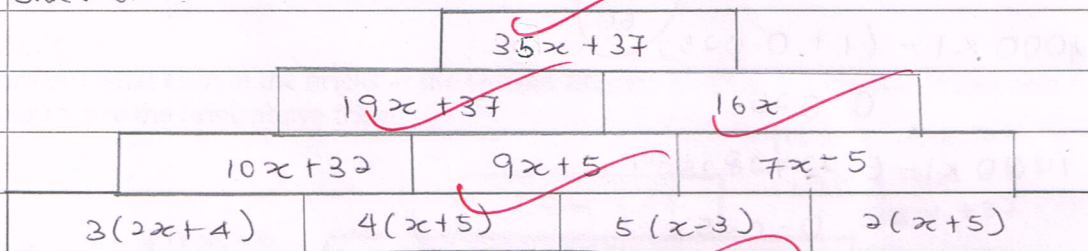
(b) $2n(-10n + 5) - 7(6 - 10n)$

$= -20n + 10n - 42 + 70n$

$= -20n + 10n + 70n - 42$

$= 60n - 42$

Question 2



$4(x + 5) + 5(x - 3)$

$= 4x + 20 + 5x - 15$

$= 4x + 5x + 20 - 15$

$= 9x + 5$

$19x + 37 + 16x$

$= 19x + 16x + 37$

$= 35x + 37$

$10x + 32 + 9x + 5$

$= 10x + 9x + 32 + 5$

$= 19x + 37$

$9x + 5 + 7x - 5$

$= 9x + 7x + 5 - 5$

$= 16x$

Question 3

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

$$3x - y = -x - 2y + 5$$

$$3(1) - y$$

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

$$3x - y = -1 - 2y + 5$$

$$3(1) - y = -1 + 5 - 2y$$

$$3 - y = 4 - 2y$$

$$3 - 3 - y = -4 - 2y - 3$$

$$-y = -7 - 2y$$

$$-1 - 1$$

$$y = -7$$

Question 4

$$1000 \times 1 - (1 + 0.025)^{-60}$$

$$0.025$$

$$1000 \times 1 - 0.227283587$$

$$0.025$$

$$1000 \times 0.772716413$$

$$0.025$$

$$1000 \times 30.90865652$$

$$= 30.90865652$$

Question 1

a) $-5g - (3g + 3)$

$-5g + 3g - 3$

$-2g - 3$

b) $2n(-10n+5) - 7(6-10n)$

$20n - 10n - 42 + 70n$

$20n - 10n + 70 - 42$

$80n - 42$

Question 2

$35x + 37$			
$19x + 37$		$16x$	
$10x + 32$	$9x + 5$	$7x - 5$	
$3(2x + 4)$	$4(x + 5)$	$5(x - 3)$	$2(x + 5)$

$3(2x + 4) + 4(x + 5)$

$6x + 12 + 4x + 5$

$6x + 4x + 12 + 20$

$10x + 32$

$4(x + 5) + 5(x - 3)$

$4x + 20 + 5x - 15$

$4x + 5x + 20 - 15$

$9x + 5$

$5(x - 3) + 2(x + 5)$

$5x - 15 + 2x + 10$

$5x + 2x - 15 + 10$

$7x - 5$

$10x + 32 + 9x + 5$

$10x + 9x + 32 + 5$

$19x + 37$

$9x + 5 + 7x - 5$

$9x + 7x - 5 - 5$

$16x$

$19x + 37 + 16x$

$19x + 16x + 37$

$35x + 37$

Question 1

2

a) $-5g - (3g + 3)$

$-5g - 3g - 3$

$= -8g - 3$

2

b) $2n(-10n+5) - 7(6-10n)$

$-20n^2 + 10 - 42 - 70n$

$-20n^2 - 70n + 10 - 42$

$= -20n^2 - 70n - 32$

X

Question 3

$3x - y = -(x - 2y)$

$3x - y = -(x - 2y)$

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

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

$\frac{-y}{-1} = \frac{-x + 2y + 3x}{-1}$

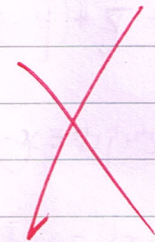
$y = -x + 2y + 3x$

?

6

Question 4

$$\frac{1000 \times 3 \times 250}{100}$$

$$PV = 7500$$


 KEMENTERIA PENDIDIKAN MALAYSIA				COURSE CODE/ COURSE NAME		PBM1035 INTENSIVE MATHEMATICS	
				COURSEWORK ASSESSMENT		TEST 1	
				SESSION		DECEMBER 2018	
				JABATAN MATEMATIK, SAINS DAN KOMPUTER		DURATION	
CLO2	1						
CLO3							
NAME	NELLINA THEKENT AK ELUS						
REGISTRATION NO.	051pp18f2017						
PROGRAMME/ SECTION	IPP1			TOTAL MARKS		10 MARKS	

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

CLO1, C2

[4 marks]

Simplify the expressions below:

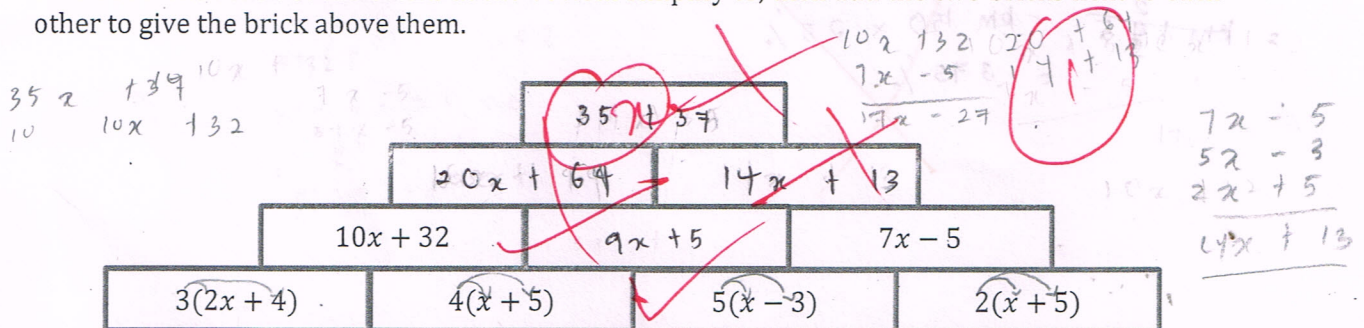
- (a) $-5g - (3g + 3)$
(b) $2n(-10n + 5) - 7(6 - 10n)$

Question 2

CLO1, C2

[4 marks]

Work out what each of the bricks at the bottom simplify to, then add the two bricks next to each other to give the brick above them.



Question 3

CLO1, C2

[4 marks]

Identify the value of y for the following equation given $x = 1$

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

Question 4

CLO1, C3

[3 marks]

You wish to receive an annuity of RM1000 a quarter for 5 years. The quarterly interest rate is 2.5%. What is the present value of the annuity?

Question 1

a). $-5g - (3g + 3)$
 $-5g - 3g + 3$
 $-8g + 3$

b). $2n(-10n + 5) - 7(6 - 10n)$
 $-20n^2 + 10 - 42 + 70n$
 $-20n^2 + 70n + 10 - 42$
 $50n - 32$

Question 2

Question 3

$$x = 1$$

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

$$3x - y = -(1 - 2y) + 5$$

$$3x - y = (1y) + 5$$

$$3x - y = 1y + 5$$

$$3x + 5 = y - 1y \quad y = 3x + 5$$

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

$$3x - y = -1 - 2y + 5$$

$$3x - y = 1y + 5$$

$$3x + 5 = y - 1y = 3x$$

$$\frac{5}{5} = \frac{1y - 3x}{5}$$

$$y = \frac{1 - 3}{5}$$

Question 4

$$\text{km } 1000 \times 5 \times 2.5$$

$$1000$$

$$= \text{km } 1 \frac{2}{5} = \text{km } 1.4$$

$$= 375\%$$

$$3x - y = -(1y) + 5$$

$$3x + 1.5 - y - 1y$$

$$8x - 1y = 2$$

$$y = 8x - 1y = 2$$

$$3x + 5 = y - 1y$$

$$3x + 5 - 5 = y - 1y - 5$$

$$3x = -1y - 5$$

$$\frac{3x}{3} = \frac{-1y - 5}{3}$$

$$(x-1)F = (x-1)F$$

$$x-1 = x-1$$

$$x-1 = x-1$$

$$x-1 = x-1$$

$$(x-1)F = (x-1)F$$

$$(x-1)F = (x-1)F$$

$$(x-1)F = (x-1)F$$

$$(x-1)F = (x-1)F$$

Question 1

2

a) $-5g - (3g + 3)$

$= -5g - 3g - 3$

$= -8g - 3$

b) $2n (10n + 5) - 7 (6 - 10n)$

$= -20n + 10 - 42 - 70n$

$= -20n - 70n + 10 - 42$

$= -90n - 32$

Question 2

$4(m + 5) + 5(m - 3)$

$= 4m + 20 + 5m - 15$

$= 4m + 5m + 20 - 15$

$= 10m + 5$

$10m + 32 + 10m + 5$

$= 10m + 10m + 32 + 5$

$= 20m + 37$

$10m + 5 + 7m - 5$

$= 10m + 7m + 5 - 5$

$= 17m$

$20m + 37 + 17m$

$= 20m + 17m + 37$

$= 37m + 37$

		$37m + 37$	
	$20m + 37$		$17m$
	$10m + 32$	$10m + 5$	$7m - 5$
$3(2m + 4)$	$4(m + 5)$	$5(m - 3)$	$2(m + 5)$

Question 3

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

$3x - y = -x + 2y + 5$

$3x + 3x - y = -x + 2y + 5 + 6x$

$-y = 10x + 2y + 5 + 5 - 4x$

$-y = 6x + 2y + 10$

$y = -6x - 2y - 10$