

 KEMENTERIA PENDIDIKAN MALAYSIA  POLITEKNIK MALAYSIA JABATAN MATEMATIK, SAINS DAN KOMPUTER		COURSE CODE/ COURSE NAME		DBM2033 DISCRETE MATHEMATICS	
		COURSEWORK ASSESSMENT		QUIZ 1	
		SESSION		DECEMBER 2018	
		NAME		DURATION	15 MINS
REGISTRATION NO.		CLO2			
PROGRAMME/ SECTION		CLO3			
		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

CLO2, C2

[5 marks]

If $X = \{a, e, i, o, u\}$ and $Y = \{a, b, c, d, e\}$.

- Identify $Y - X$.
- Given the universal set $U = \{a, b, c, d, e, f, g, i, o, u, z\}$. What is the complement of $X \cup Y$?
- Is set X and Y disjoint sets? Explain your answer.

Question 2

CLO2, C3

[5 marks]

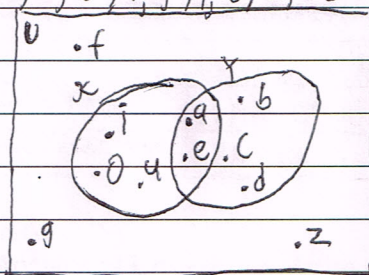
Given function $f(x) = 4x - 1$. The domain for the function is $\{-1, 0, 1\}$.

- Identify the range for $f(x)$.
- Is the function f one-to-one? Explain your answer.
- What is the inverse function for the function above?

1.

a. $Y = \{b, c, d\}$

b. $U = \{a, b, c, d, e, f, g, i, o, u, z\}$



$$X \cup Y = \{a, b, c, d, e, i, o, u\}$$

so?

c. Set X and set Y is not disjoint set. because set X have elements $\{a, e\}$ in set X and set Y .

2.

a) $f(x) = 4x - 1$

$f(0) = 4(0) - 1$

$f(1) = 4(1) - 1$

$f(-1) = 4(-1) - 1$

$= 0 - 1$

$= 4 - 1$

$= -4 - 1$

$= -1$

$= 3$

$= -5$

range of $f(x)$ is $\{-5, -1, 3\}$

b. It is one-to-one function because all domain pointing to are only pointing to one and not pointing more than one elements.

range.

c. $\{(-1, -5), (0, -1), (1, 3)\}$

inverse function

$= \{(-5, -1), (-1, 0), (3, 1)\}$

 KEMENTERIA PENDIDIKAN MALAYSIA		 POLITEKNIK MALAYSIA		COURSE CODE/ COURSE NAME		DBM2033 DISCRETE MATHEMATICS		
				COURSEWORK ASSESSMENT		QUIZ 1		
				SESSION		DECEMBER 2018		
				DURATION	15 MINS	CLO1	10 MARKS	
JABATAN MATEMATIK, SAINS DAN KOMPUTER								
NAME		MOHD SYAAFI AFFANW				CLO2		
REGISTRATION NO.		OJDDT18F1012				CLO3		
PROGRAMME/ SECTION		DDT 2B		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

CLO2, C2

[5 marks]

If $X = \{a, e, i, o, u\}$ and $Y = \{a, b, c, d, e\}$.

- Identify $Y - X$.
- Given the universal set $U = \{a, b, c, d, e, f, g, i, o, u, z\}$. What is the complement of $X \cup Y$?
- Is set X and Y disjoint sets? Explain your answer.

$$X \cup Y = \{a, b, c, d, e, i, o, u\}$$

Question 2

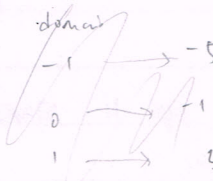
CLO2, C3

[5 marks]

Given function $f(x) = 4x - 1$. The domain for the function is $\{-1, 0, 1\}$.

- Identify the range for $f(x)$.
- Is the function f one-to-one? Explain your answer.
- What is the inverse function for the function above?

$$\begin{aligned}
 f(-1) &= 4(-1) - 1 \\
 &= -4 - 1 \\
 &= -5 \\
 0 &= 1 \\
 &= -1
 \end{aligned}$$



$$\begin{aligned}
 &= 4(-5) - 1 \\
 &= -20 - 1 \\
 &= -21
 \end{aligned}$$

$$\begin{aligned}
 &= 4(-1) - 1 \\
 &= -4 - 1 \\
 &= -5
 \end{aligned}$$

$$\begin{aligned}
 &= 4(1) - 1 \\
 &= 4 - 1 \\
 &= 3
 \end{aligned}$$

$$f(x)^{-1} =$$

Question 1

(a)

$$Y - X = \{b, c, d\}$$

✓ (1)

(b) $X \cup Y = \{a, b, c, d, e, i, o, u\}$ ✓ (1) so?

(c) No. Because it has same element $X = \{a, e\}$ and $Y = \{a, e\}$.

✓ (2)

Question 2

(a) The range for $f(x)$ is $\{-5, -1, 3\}$. ✓ (1)

(b) The function f is one to one because it go to one element only. ✓ (1)

(c) $f(x)^{-1} = 4x - 1$ ✗

 KEMENTERIA PENDIDIKAN MALAYSIA  JABATAN MATEMATIK, SAINS DAN KOMPUTER		COURSE CODE/ COURSE NAME		DBM2033 DISCRETE MATHEMATICS	
		COURSEWORK ASSESSMENT		QUIZ 1	
		SESSION		DECEMBER 2018	
		DURATION	15 MINS	CLO1	10 MARKS
CLO2	5				
CLO3					
NAME	Beckham Gilbert	TOTAL MARKS		10 MARKS	
REGISTRATION NO.	0500718 F281				
PROGRAMME/ SECTION	DPT2B				

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

CLO2, C2

[5 marks]

If $X = \{a, e, i, o, u\}$ and $Y = \{a, b, c, d, e\}$.

- Identify $Y - X$.
- Given the universal set $U = \{a, b, c, d, e, f, g, i, o, u, z\}$. What is the complement of $X \cup Y$?
- Is set X and Y disjoint sets? Explain your answer.

Question 2

CLO2, C3

[5 marks]

Given function $f(x) = 4x - 1$. The domain for the function is $\{-1, 0, 1\}$.

- Identify the range for $f(x)$.
- Is the function f one-to-one? Explain your answer.
- What is the inverse function for the function above?

Quiz | Discrete Maths

Question 1.

$$X = \{a, e, i, o, u\} \quad \text{and} \quad Y = \{a, b, c, d, e\}$$

a) $Y - X$

$$X = \{a, e, i, o, u\}$$

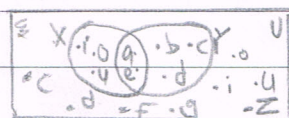
$$Y = \{a, b, c, d, e\}$$

$$Y - X = \{(a, a), (b, e), (c, i), (d, o), (e, u)\}$$

b) $U = \{a, b, c, d, e, f, g, i, o, u, z\}$

$$\text{Complement of } X \cup Y = \{o, b, c, i, u, d\}$$

$$X \cup Y = \{i, o, u, b, c, d\}$$



c) No. Set X and Y is not a disjoint sets since that set X and Y have element inside the sets. Besides, there are some element that are same on the both of the sets X and Y.

Question 2.

a) Range for $f(X)$

$$f(X) = 4X - 1$$

$$\text{Range for } f(X) = \{-5, -1, 3\}$$

b) function f is one to one function since that the domain of the function got three domain there and each of it will going to each of the codomain too.

2

c) The inverse function is ~~fx~~...

 KEMENTERIA PENDIDIKAN MALAYSIA				COURSE CODE/ COURSE NAME		DBM2033 DISCRETE MATHEMATICS	
				COURSEWORK ASSESSMENT		QUIZ 1	
				SESSION		DECEMBER 2018	
				JABATAN MATEMATIK, SAINS DAN KOMPUTER		DURATION	15 MINS
CLO2							
CLO3							
NAME		NUR AFIQAH BT HABAH		TOTAL MARKS		10 MARKS	
REGISTRATION NO.		0500181815					
PROGRAMME/ SECTION		DDT2B					

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

CLO2, C2

[5 marks]

If $X = \{a, e, i, o, u\}$ and $Y = \{a, b, c, d, e\}$.

- Identify $Y - X$.
- Given the universal set $U = \{a, b, c, d, e, f, g, h, i, o, u, z\}$. What is the complement of $X \cup Y$?
- Is set X and Y disjoint sets? Explain your answer.

Question 2

CLO2, C3

[5 marks]

Given function $f(x) = 4x - 1$. The domain for the function is $\{-1, 0, 1\}$.

- Identify the range for $f(x)$.
- Is the function f one-to-one? Explain your answer.
- What is the inverse function for the function above?

Question 1

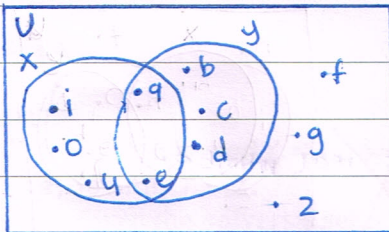
(a)

$$X = \{a, e, i, o, u\}$$

$$Y = \{a, b, c, d, e\}$$

$$Y - X = \{b, c, d\} \quad (1)$$

(b)



$$X \cup Y = \{a, b, c, d, e, i, o, u\} \quad (1) \text{ so?}$$

(c) No, set X and set Y is joint sets because the both of sets have sharing the same element which is a and e.

Question 2

a) The range for $f(x)$

$$4x-1 \quad \text{domain } \{-1, 0, 1\}$$

$$4(-1)-1 = -5$$

$$4(0)-1 = -1$$

$$4(1)-1 = 3$$

$$= \{-5, -1, 3\}$$

b) Yes. ~~Because~~ ~~the~~ The result for the function is ~~real number~~

①

(c)

$$f(x) = 4x - 1$$

$$\text{Let } y = 4x - 1$$

$$y+1 = 4x$$

$$\frac{y+1}{4} = \frac{4x}{4}$$

$$\frac{y+1}{4} = x$$

$$f^{-1}(x) = \frac{x+1}{4}$$

$$f(x)^{-1} = \frac{x+1}{4}$$

① $\frac{1}{2}$

 KEMENTERIA PENDIDIKAN MALAYSIA		 POLITEKNIK MALAYSIA		COURSE CODE/ COURSE NAME		DBM2033 DISCRETE MATHEMATICS		
				COURSEWORK ASSESSMENT		QUIZ 1		
		JABATAN MATEMATIK, SAINS DAN KOMPUTER		SESSION		DECEMBER 2018		
DURATION				15 MINS	CLO1	10 MARKS		
					CLO2			
					CLO3			
NAME	Linda Andnias							
REGISTRATION NO.	DDT18F1003 OSD0T18F1003							
PROGRAMME/ SECTION	DDT2B			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

CLO2, C2

[5 marks]

If $X = \{a, e, i, o, u\}$ and $Y = \{a, b, c, d, e\}$.

- Identify $Y - X$.
- Given the universal set $U = \{a, b, c, d, e, f, g, i, o, u, z\}$. What is the complement of $X \cup Y$?
- Is set X and Y disjoint sets? Explain your answer.

Question 2

CLO2, C3

[5 marks]

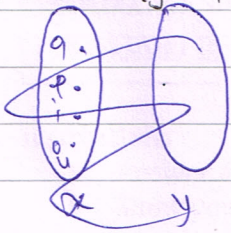
Given function $f(x) = 4x - 1$. The domain for the function is $\{-1, 0, 1\}$.

- Identify the range for $f(x)$.
- Is the function f one-to-one? Explain your answer.
- What is the inverse function for the function above?

Question 1.

If $X = \{a, e, i, o, u\}$ and $Y = \{a, b, c, d, e\}$

(a) Identify $Y - X$.



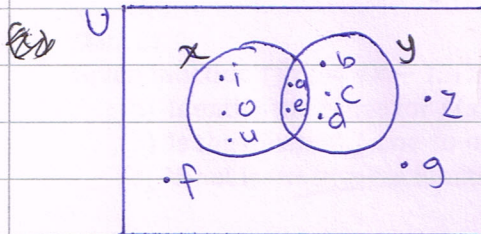
$$Y - X = \{b, c, d\}$$

✓ (1)

(b) $X = \{a, e, i, o, u\}$

$Y = \{a, b, c, d, e\}$

$X \cup Y = \{a, b, c, d, e, i, o, u\}$ ✓ (1)



50?

(c) ~~Set~~ Set X and Y is not disjoint. ✓ (1)

Why?

Question 2.

$$f(x) = 4x - 1. \text{ Domain } \{-1, 0, 1\}$$

(a) Identify the range for $f(x)$

$$f(x) = 4(-1) - 1$$

$$= -5$$

$$f(x) = 4(0) - 1$$

$$= -1$$

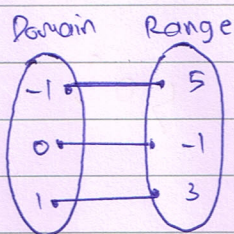
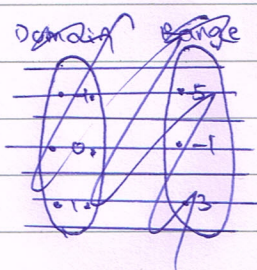
$$f(x) = 4(1) - 1$$

$$= 3$$

$$\text{Range} = \{-5, -1, 3\}$$

(b) Is the function f one-to-one? Explain your answer.

= Function f is one-to-one.



(c) What is the inverse function for the function above?

$$\{(5, -1), (-1, 0), (3, 1)\}$$

 KEMENTERIA PENDIDIKAN MALAYSIA				COURSE CODE/ COURSE NAME	DBM2033 DISCRETE MATHEMATICS
				COURSEWORK ASSESSMENT	QUIZ 1
JABATAN MATEMATIK, SAINS DAN KOMPUTER				SESSION	DECEMBER 2018
				DURATION	15 MINS
NAME	Sharol Nazren Bin Sarkawi			CLO1	10 MARKS
REGISTRATION NO.	05DDT18F1091			CLO2	
PROGRAMME/ SECTION	DOT2B			CLO3	
				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

CLO2, C2

[5 marks]

If $X = \{a, e, i, o, u\}$ and $Y = \{a, b, c, d, e\}$.

- Identify $Y - X$.
- Given the universal set $U = \{a, b, c, d, e, f, g, i, o, u, z\}$. What is the complement of $X \cup Y$?
- Is set X and Y disjoint sets? Explain your answer.

Question 2

CLO2, C3

[5 marks]

Given function $f(x) = 4x - 1$. The domain for the function is $\{-1, 0, 1\}$.

- Identify the range for $f(x)$.
- Is the function f one-to-one? Explain your answer.
- What is the inverse function for the function above?

Question 1

* If $X = \{a, e, i, o, u\}$ and $Y = \{a, b, c, d, e\}$

a) Identify $Y - X$

$$Y - X = \{b, c, d, o, u\}$$

b) Given the universal set $U = \{a, b, c, d, e, f, g, i, o, u, z\}$. What is the complement of $X \cup Y$?

$$X \cup Y = \{a, b, c, d, e, i, o, u\}$$

(1) 50?

c) Is set X and Y disjoint sets? explain your answer.

No since ~~$X \subset Y$~~ $X \subset Y$ but $Y \not\subset X$?

Question 2

Given function $f(x) = 4x - 1$. The domain for the function is $(-1, 0, 1)$

a) Identify the range $f(x)$.

$$\cancel{f(x) = 4(-1) - 1} \quad \cancel{f(x) =} \quad f(-1) = 4(-1) - 1 = -5$$

b) Is the function f one-to-one? explain your answer.

c) What is the inverse function for the function above?

Primary key

* Customer_No

* Property_No

Customer Name (Customer_No , Property_No , CName)

Property ~~Address~~ (Property_No , PAddress)

Rent (Customer_No , Property_No , CName , Rent)

Owner Name (Owner_No , OName)

 KEMENTERIA PENDIDIKAN MALAYSIA  POLITEKNIK MALAYSIA JABATAN MATEMATIK, SAINS DAN KOMPUTER		COURSE CODE/ COURSE NAME		DBM2033 DISCRETE MATHEMATICS	
		COURSEWORK ASSESSMENT		QUIZ 1	
		SESSION		DECEMBER 2018	
		DURATION	15 MINS	CLO1	10 MARKS
CLO2	2				
CLO3					
NAME	Ostine Anika Oslo				
REGISTRATION NO.	05DOT17P2011				
PROGRAMME/ SECTION			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

CLO2, C2

[5 marks]

If $X = \{a, e, i, o, u\}$ and $Y = \{a, b, c, d, e\}$.

- Identify $Y - X$.
- Given the universal set $U = \{a, b, c, d, e, f, g, i, o, u, z\}$. What is the complement of $X \cup Y$?
- Is set X and Y disjoint sets? Explain your answer.

Question 2

CLO2, C3

[5 marks]

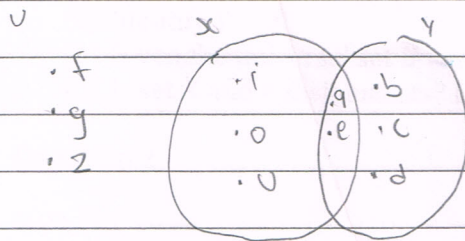
Given function $f(x) = 4x - 1$. The domain for the function is $\{-1, 0, 1\}$.

- Identify the range for $f(x)$.
- Is the function f one-to-one? Explain your answer.
- What is the inverse function for the function above?

Question 1

a) $Y - X$
 $= \{a, e\}$

b) $U = \{a, b, c, d, e, f, g, i, o, u, z\}$
 $X = \{a, e, i, o, u\}$
 $Y = \{a, b, c, d, e\}$



$X \cup Y = \{a, b, c, d, e, i, o, u\}$

c) Yes because set X and Y didn't joint completely

Question 2

a) $-5 \leq x \leq 5$

b) Yes because

c)

 KEMENTERIA PENDIDIKAN MALAYSIA				COURSE CODE/ COURSE NAME		DBM2033 DISCRETE MATHEMATICS			
				COURSEWORK ASSESSMENT		QUIZ 1			
				SESSION		DECEMBER 2018			
				DURATION	15 MINS	CLO1	10 MARKS		
NAME		ASMIRAH SHAZLEENAH				CLO2	2		
REGISTRATION NO.		050018P100				CLO3			
PROGRAMME/ SECTION		DDT2B-S2		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

CLO2, C2

[5 marks]

If $X = \{a, e, i, o, u\}$ and $Y = \{a, b, c, d, e\}$.

- Identify $Y - X$.
- Given the universal set $U = \{a, b, c, d, e, f, g, i, o, u, z\}$. What is the complement of $X \cup Y$?
- Is set X and Y disjoint sets? Explain your answer.

Union

Intersection

Question 2

CLO2, C3

[5 marks]

Given function $f(x) = 4x - 1$. The domain for the function is $\{-1, 0, 1\}$.

- Identify the range for $f(x)$.
- Is the function f one-to-one? Explain your answer.
- What is the inverse function for the function above?

Range $f(x) = 5$

$$\begin{aligned}
 4x - 1 \\
 x = 2 + 1 \\
 = 5 \\
 1 = 2
 \end{aligned}$$

1. a) Identify $Y - X$

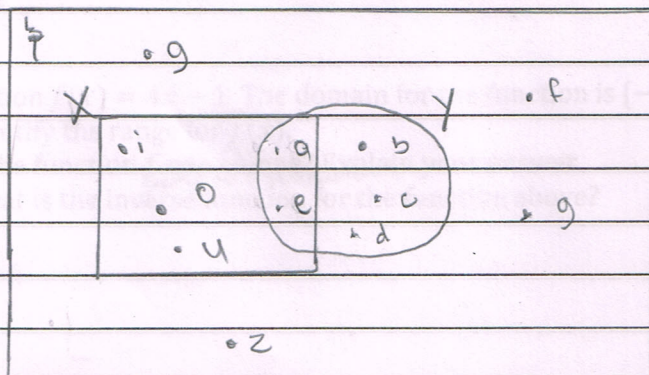
$$Y = \{a, b, c, d, e\}$$

$$X = \{a, e, i, o, u\}$$

b) $U = \{a, b, c, d, e, f, g, i, o, u, v, z\}$

$$X = \{a, e, i, o, u\}$$

$$Y = \{a, b, c, d, e\}$$

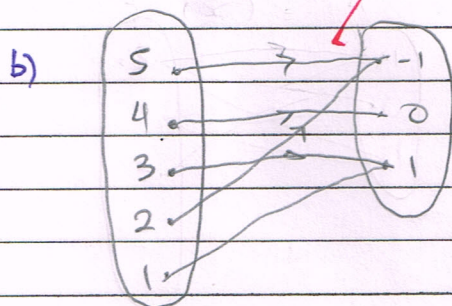


$$X \cup Y = \{a, e\}$$

c) Set X and Y is not disjoint set because there are element a and e $\in X \cup Y$

(2)

2. a) Range for $f(x) = 5$



It is not one to one function because it is not pointing to the elements

