



DHOFAR UNIVERSITY
FOUNDATION PROGRAM | MATH UNIT
FPM 101A – Math Level 1
Model Paper-Midterm EXAM
Term (2023-24)

Student Name							
Student ID							Date:
Section							Duration: 1 hour 15 minutes
Instructor							

Instructions:

- 1) The exam has 5 main questions with a scratch sheet.
- 2) Please turn off your mobile phone.
- 3) Use only a blue or black pen.
- 4) No talking, passing objects or looking in the direction of another student's paper. Any of these behaviors will be considered cheating.

Dhofar University's Academic Integrity Policy (Policy No. DU-AC-007) is intended to foster hard work, honesty, and responsibility. It strictly prohibits all forms of academic misconduct, including cheating and collusion, plagiarism, and impersonation.

By reading this pledge, I affirm that I have upheld the AIP and that my submitted work is my own and therefore free of any form of cheating.

تهدف سياسة النزاهة الأكاديمية بجامعة ظفار (السياسة رقم DU-AC-007) إلى تعزيز العمل الجاد والأمانة والمسؤولية و تحظر تماما جميع الأشكال التي تخالف النزاهة الأكاديمية ، بما في ذلك الغش والتواطؤ والسرقة الأدبية والانتحال.

من خلال قراءتي لهذا التعهد أؤكد أنني ملتزم بسياسة النزاهة الأكاديمية و أن عملي هذا هو خاص بي ويخلو من أي شكل من أشكال الغش.

Student's Signature: _____

Marking Grid

Question	Question 1 MCQ's (out of 8)	Question 2 (out of 4)	Question 3 (out of 3)	Question 4 (out of 9)	Question 5 (out of 6)	Total / 30 marks
Marks obtained						

Marker's name:		Moderator's name:	
Marker's signature:		Moderator's signature:	
Date:		Date:	

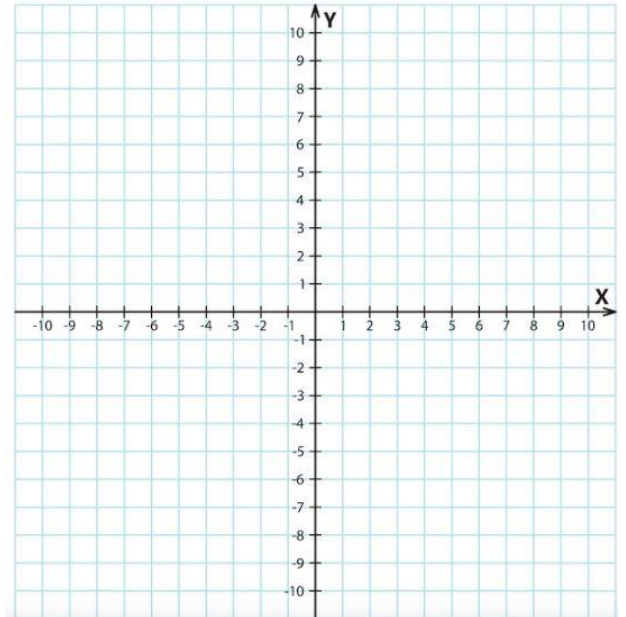
Question 1: MULTIPLE CHOICE. Circle the correct answer.**(8 Marks)**

1.	Which of these points is a solution to $2x - y = 3$ a) $(2,1)$ b) $(1,2)$ c) $(3,1)$ d) $(0,2)$
2.	The slope of a line $y = 2x + 1$ is: a) 0 b) -2 c) 2 d) Undefined
3.	The equation of the line that goes through the points $(-3, 0)$ and $(4, 0)$ is: a) $y = x$ b) $y = 0$ c) $y = 7x - 28$ d) $y = 7x$
4.	The slope of a line that is perpendicular to the line $y = -2(x + 4)$ is : a) $\frac{1}{2}$ b) $\frac{-1}{2}$ c) -2 d) 2
5.	The slope of two parallel lines are: a) <i>equal</i> b) <i>not equal</i> c) always = 0 d) always = -1
6.	Simplify: $(2)^0$ a) 2 b) 1 c) undefined d) 0
7.	Simplify: $(5^2)^{-1}$ a) 25 b) 5 c) $\frac{1}{25}$ d) $\frac{1}{10}$
8.	Simplify: $2^2 \cdot 2^2$ a) 8 b) $\frac{1}{16}$ c) 16 d) 4

Question 2: (4 Marks)

Draw the graph for the linear inequality:

$$2x + 4y < 8$$



Question 3: (3 Marks)

Rationalize the denominator:

$$\frac{1}{\sqrt{x-2}}$$

Question 4: (9 Marks)

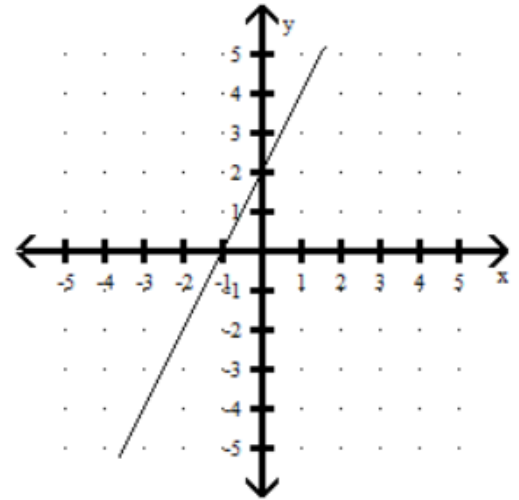
a) From the given graph find:

1) x – intercept: (,) (1 mark)

y – intercept: (,)

2) the slope (**m**) of the Line (2 marks)

$m =$



3) the **equation** of the Line. (4 marks)

b) the **Equation** of the Line that pass (3, -4) and parallel to $y=2x+1$. (2 marks)

Question 5: (6 Marks)

Simplify the following with positive integers:

a) $(-4x^5)(2x) =$ (2 Marks)

b) $\left(\frac{2a^3b^{-4}}{4a^4b^{-4}}\right)^2 =$ (4 Marks)

End of Model Paper-Midterm Exam

SCRATCH SHEET

Name: _____

Note:

1. This scratch sheet will not be marked.
2. Do not detach it from the rest of exam papers.