

Name:
ID:
Group:
Subject: Math.
Date: Saturday 16 / 3 / 2013
Mid -Term Exam

Question 1 (12 marks): Choose the correct answer and write them in the table below:

1) The result of $(-3a + 10a)$ is :

- A (13a) B (-13a) **C (7a)** D (-7a)

2) The slope of the line containing the point (2, 7) and (-2, 3) is:

- A $(\frac{-5}{2})$ B $(\frac{-3}{4})$ C $(\frac{-4}{4})$ **D (1)**

3) The solution for the equation $x + y = -3$ is:

- A (-1, -2)** B (1, 2) C (-1, 2) D (1, -2)

4) The slope for the horizontal line is:

- A (0)** B (not define) C (1) D $(\frac{1}{2})$

5) The result of $(2x^3)^4$ is:

- A $(2x^{12})$ **B $(16x^{12})$** C $(16x^7)$ D $(2x^7)$

6) The value of $|x - 2|$ when $x = -3$ is:

- A (-5) **B (5)** C (-1) D (1)

7) The degree of the polynomial $9x^3 - 10x^4 + 3x + 7x^2 - 5$ is:

- A (9) B (3) **C (4)** D (2)

8) The scientific notation of the number 4520000000 is:

- A (4.52×10^{10})** B (4.52×10^{-10}) C (452×10^8) D (452×10^{-8})

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9) The factorization of $x^2 - 16$ is:

A $(x - 4)(x - 4)$

B $(x + 4)(x + 4)$

C $(x - 4)(x + 4)$

D $(x - 2)(x - 8)$

10) The x - intercepts of the equation $x + y = 2$ is:

A $(2, 0)$

B $(0, 2)$

C $(1, 0)$

D $(0, 1)$

11) The excluded values of $\frac{x^2}{x+1}$ are:

A $(x = 1)$

B $(x = -1)$

C $(x = 0)$

D $(x = 0 \text{ and } x = -1)$

12) The opposite of -34 is:

A (-34)

B $(\frac{1}{34})$

C $(\frac{-1}{34})$

D (34)

Question	1	2	3	4	5	6	7	8	9	10	11	12
Answer	C	D	A	A	B	B	C	A	C	A	B	D

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Question 2: (3 marks)

Perform and simplify the following :

1) $\frac{x-3}{x^2-9}$ such that $x \neq \mp 3$

$$\frac{\cancel{(x-3)}}{\cancel{(x-3)}(x+3)} = \frac{1}{(x+3)}$$

2) $(x+2)(x+4)$

$$x^2 + 2x + 4x + 8$$

$$x^2 + 6x + 8$$

3) $(5x^2 + 2x + 1) + (-2x^2 - 3x + 7)$

$$5x^2 + 2x + 1 + 2x^2 + 3x + 7$$

$$3x^2 + 5x + 8$$

Question 3: (2marks)

Solve the equation $x^2 - 9x + 14 = 0$

$$(x-2)(x-7) = 0$$

$$x-2 = 0 \rightarrow \boxed{x=2}$$

$$x-7 = 0 \rightarrow \boxed{x=7}$$

Question 4: (1 mark)

Find the GCF and the LCM of : $3x^2, x^4$

GCF = x^2

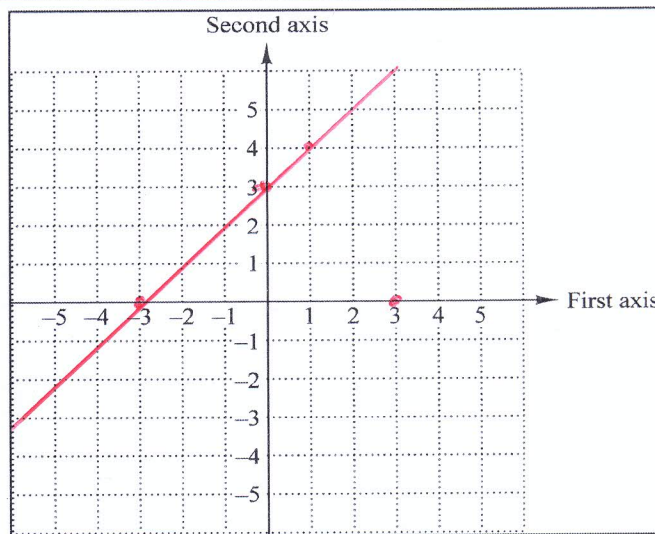
LCM = $3x^4$

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Question 5: (2 marks)

Graph $y = x+3$

x	Y
1	4
0	3
-3	0



Answer Sheet