

تم تحميل هذا الملف من موقع المناهج الإماراتية



الملف امتحان نهاية الفصل الأول للعام 2018-2019

[موقع المناهج](#) ⇨ [المناهج الإماراتية](#) ⇨ [الصف الحادي عشر العام](#) ⇨ [رياضيات](#) ⇨ [الفصل الأول](#)

روابط مواقع التواصل الاجتماعي بحسب الصف الحادي عشر العام



روابط مواد الصف الحادي عشر العام على تلغرام

[الرياضيات](#)

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المزيد من الملفات بحسب الصف الحادي عشر العام والمادة رياضيات في الفصل الأول

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| التوزيع الزمني للفصل الاول | 2 |
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End of Term 1 Exam
Academic Year 2018/2019

Part I

45

Circle the letter corresponding to the correct answer.

1) Select the algebraic expression that represents the verbal expression below.

"2 more than 4 times the cube of a number x "



a) $2x^3 + 4$

b) $3x^3 + 4$

c) $4x^3 + 2$

d) $4(x + 2)^3$

2) Solve $|2x - 3| \leq 7$.

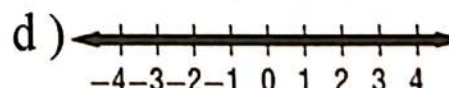
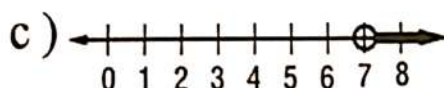
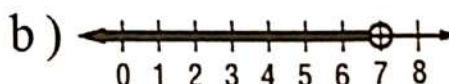
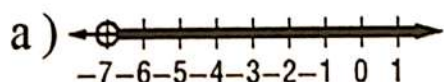
a) $x \leq 5$

b) $-2 \leq x \leq 5$

c) $-5 \leq x \leq 5$

d) all real numbers

3) Identify the graph of the solution set of the inequality $-2.3 < 4 + 0.9y$.



4) Which function is a linear function?

a) $xy = 60$

b) $y = x^2 - 3x + 1$

c) $3x - 2y - 5 = 0$

d) $y^2 + 1 = x$



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5) Write an equation of the line through (1, 2) with a slope of -4.

a) $y = -2x + 4$

b) $y = -4x + 6$

c) $y = -4x + 2$

d) $y = -4x + 9$

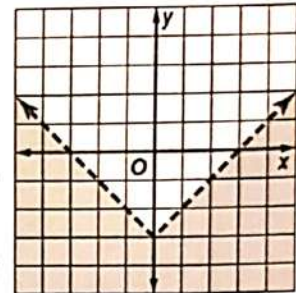
6) Which inequality is graphed at the right?

a) $y \geq |x| - 3$

b) $y \leq |x| - 3$

c) $y > |x| - 3$

d) $y < |x| - 3$



7) Let $A = \begin{bmatrix} 3 & 5 & -8 \\ 12 & -11 & 9 \end{bmatrix}$, $B = \begin{bmatrix} 1 & 7 & -5 \\ -10 & 0 & 2 \end{bmatrix}$. Find $3B + 2A$.

a) $\begin{bmatrix} 9 & 12 & -13 \\ 2 & -11 & 11 \end{bmatrix}$

b) $\begin{bmatrix} 3 & 10 & -2 \\ -7 & 0 & 5 \end{bmatrix}$

c) $\begin{bmatrix} 11 & 29 & -34 \\ -11 & -33 & 31 \end{bmatrix}$

d) $\begin{bmatrix} 9 & 31 & -31 \\ -6 & -22 & 24 \end{bmatrix}$

8) What are the dimensions of the product of $A_{3 \times 6} \times B_{3 \times 6}$?

a) 3×3

b) 3×6

c) 6×6

d) undefined



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9) Which system of equations is graphed?

a) $2x + y = 2$

$-3x - y = 4$

c) $2x + y = -2$

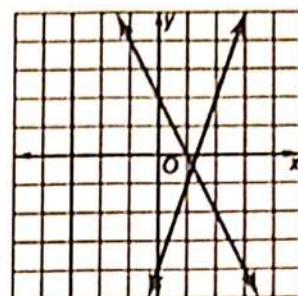
$3x - y = 4$

b) $2x + y = 2$

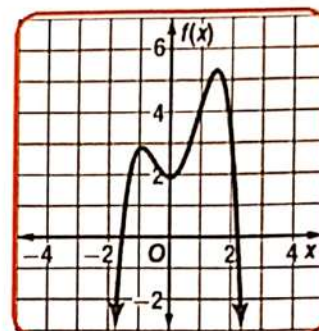
$3x - y = 4$

d) $2x + y = -2$

$-3x - y = 4$



10) Use the graph shown. Determine the values of x between which a real zero is located.



a) between -2 and -1 b) between 0 and 1

c) between -1 and 0 d) between -3 and -2

11) Solve $a^4 - 4 = 0$.

a) $a = \pm \sqrt{2}, \pm 1$

b) $a = \pm \sqrt{2}, \pm i\sqrt{2}$

c) $a = \pm 2i, \pm \sqrt{2}$

d) $a = -\sqrt{2}, 2, 2i, i\sqrt{2}$

12) Simplify $3(4x - 2y) - 2(3x + y)$.

a) $18x - 8y$

b) $6x + 4y$

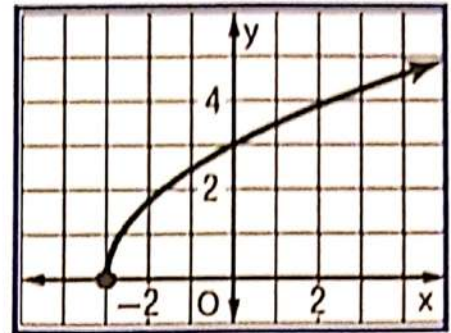
c) $8x - 4y$

d) $6x - 8y$



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13) State the domain and range of the function graphed below.



a) $D = \{x \mid x > -3\}$, $R = \{y \mid y > 0\}$

b) $D = \{x \mid x > -3\}$, $R = \{y \mid y < 0\}$

c) $D = \{x \mid x \geq -3\}$, $R = \{y \mid y \geq 0\}$

d) $D = \{x \mid x \geq -3\}$, $R = \{y \mid y > 0\}$

14) Solve $(3m + 1)^{\frac{1}{4}} = 2$.

a) $m = 5$

b) $m = 1$

c) $m = 3$

d) $m = 16$

15) Which value of c makes $\sqrt{56 - c}$ a positive integer?

a) -10

b) 66

c) -8

d) 54



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Show all the details when answering these questions.

16) Find the value of k so that $x - 2$ divides $x^3 - kx + 4$ with no remainder.

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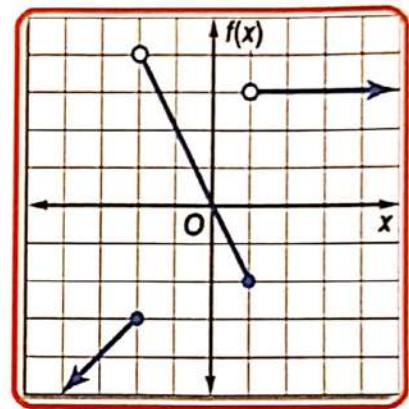
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17) Write the piecewise-defined function shown in the graph.

BONUS



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18) Find the product, if possible. $\begin{bmatrix} -1 & 0 \\ 5 & 2 \end{bmatrix} \times \begin{bmatrix} 6 & -3 \\ 7 & -2 \end{bmatrix}$

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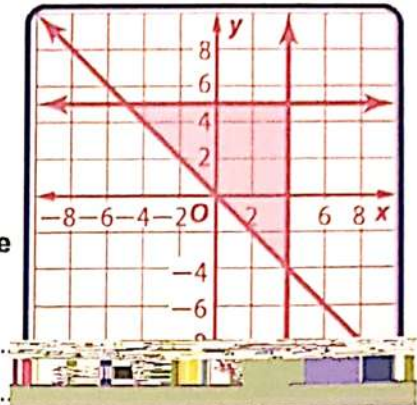
19) The system of inequalities

$$y \leq 5$$

$$x \leq 4$$

$$y \geq x$$

is graphed on the side.



a) What are the coordinates of the vertices of the feasible region?

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b) Find the maximum and minimum values of the function $f(x, y) = 5x - 2y$ for this region.

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20) Find $(4a^4 + 2a^2 - 4a - 80) \div (a + 2)$.

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- 21) A boardwalk that is x meters wide is built around a rectangular pond. The pond is 30 m wide and 40 m long. The combined area of the pond and the boardwalk is 2000 m^2 . What is the width of the boardwalk?

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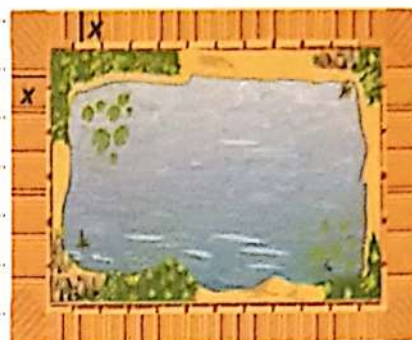
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- 22) Determine whether the pair of functions are inverse functions. Explain your reasoning.

$$f(x) = \frac{x+10}{8}, \quad g(x) = 8x - 10$$

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- 23) Simplify the expression. $\frac{h^{\frac{1}{2}} + 1}{h^{\frac{1}{2}} - 1}$

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End of Exam

Good Luck



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