

شكراً لتحميلك هذا الملف من موقع المناهج الإماراتية



مراجعة نهائية وفق الهيكل الوزاري

موقع المناهج ← المناهج الإماراتية ← الصف الحادي عشر المتقدم ← رياضيات ← الفصل الأول ← الملف

التواصل الاجتماعي بحسب الصف الحادي عشر المتقدم



روابط مواد الصف الحادي عشر المتقدم على تلغرام

[الرياضيات](#)

[اللغة الانجليزية](#)

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[التربية الاسلامية](#)

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

أوراق عمل الدرس الأول من الوحدة الخامسة Graphing Exponential Functions	1
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مراجعة الرياضيات طبقاً للهيكل
الفصل الأول من العام الدراسي 2022-2023

Grade
11 ADV

Math

$$4\frac{2}{3}$$

x

÷



$$A = b \times h$$



إعداد أ/ محمد عبد الغني الخولي

1a) write in set builder notation. $8 < x < 99$

- a. $\{x|8 < x < 99 , x \in Z\}$
- b. $\{x|8 < x < 99 , x \in R\}$
- c. $\{x|8 < x < 99 , x \in N\}$
- d. $\{x|8 < x < 99 , x \in W\}$

1b) write in set builder notation. $\{-0.25 , 0 , 0.25 , 0.5 , \dots\}$

- a. $\{x|x = 0.25n, n \geq -1 , n \in R\}$
- b. $\{x|x = 0.25n, n \geq -1 , n \in N\}$
- c. $\{x|x = 0.25n , n \in Z\}$
- d. $\{x|x = 0.25n, n \geq -1 , n \in Z\}$

1c) write in set builder notation. all multiples of 8

- a. $\{x|x = 8n , n \in R\}$
- b. $\{x|x = 8n , n \in N\}$
- c. $\{x|x = 8n , n \in Z\}$
- d. $\{x|x = 8 , n \in R\}$

1d) write in interval notation . $-31 < x \leq 64$

- a. $(-31 , 64]$
- b. $[-31 , 64)$
- c. $(64 , -31]$
- d. $[64 , -31)$

1e) write in interval notation . $x < 0$ or $x \geq 100$

- a. $(-\infty, 0) \cup [100, -\infty)$
- b. $(\infty, 0) \cup [100, \infty)$
- c. $(-\infty, 0) \cup [100, \infty)$
- d. $(-\infty, 100) \cup [0, \infty)$

2a) if $f(x) = \begin{cases} -4x + 3 & \text{if } x < 3 \\ -x^3 & \text{if } 3 \leq x \leq 8 \\ 3x^2 + 1 & \text{if } x > 8 \end{cases} \quad f(-5)$

- a. 125
- b. 23
- c. 76
- d. 100

2b) if : $f(x) = \begin{cases} -15 & \text{if } x < -5 \\ \sqrt{x+6} & \text{if } -5 \leq x \leq 10 \\ \frac{2}{x} + 8 & \text{if } x > 10 \end{cases} \quad f(10) =$

- a. -15
- b. 8.2
- c. 7
- d. 4

2c) if $f(x) = \begin{cases} 2x^2 + 6x + 4 & \text{if } x < -4 \\ 6 - x^2 & \text{if } -4 \leq x < 12 \\ 14 & \text{if } x \geq 12 \end{cases}$ find $f(12)$

- a. 367
- b. -138
- c. 14
- d. 0

3a) the domain of $f(x) = \frac{8x + 12}{x^2 + 5x + 4}$ is

- a. $\{-1, -4\}$
- b. $R / \{-\frac{3}{2}\}$
- c. $R / \{-1, -4\}$
- d. $R / \{1, 4\}$

3b) the domain of $h(x) = \sqrt{6 - x^2}$

- a. $[-\sqrt{6}, \sqrt{6}]$
- b. $(-\infty, -\sqrt{6}] \cup [\sqrt{6}, \infty)$
- c. $R / \{\sqrt{6}, -\sqrt{6}\}$
- d. $\{\sqrt{6}, -\sqrt{6}\}$

3c) the domain of $g(a) = \sqrt{1 + a^2}$

- a. $[-1, 1]$
- b. $(-1, 1)$
- c. $\{-1, 1\}$
- d. R

3d) the domain of $f(a) = \frac{5a}{\sqrt{4a - 1}}$

- a. $(\frac{1}{4}, \infty)$
- b. $[-\frac{1}{4}, \frac{1}{4}]$
- c. $[\frac{1}{4}, \infty)$
- d. $\{-\frac{1}{4}, \frac{1}{4}\}$

3e) the domain of $f(x) = \frac{2}{x} + \frac{4}{x+1}$

- a. $R/\{-1\}$
- b. $R/\{0\}$
- c. $R/\{-1, 0\}$
- d. $\{-1, 0\}$

4a) the function $h(x) = \frac{x - 4}{x^2 - 5x + 4}$ is

- a. infinity discontinuity when $x = 1$
- b. jump discontinuity when $x = 1$
- c. removable discontinuity when $x = 1$
- d. continuous when $x = 1$

4b) the function $h(x) = \frac{x^2 - 25}{x + 5}$ is

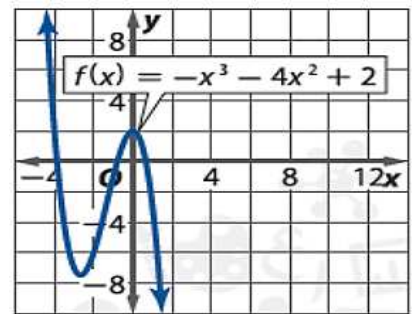
- a. infinity discontinuity when $x = -5$
- b. jump discontinuity when $x = -5$
- c. removable discontinuity when $x = -5$
- d. continuous when $x = -5$

4c) the function $f(x) = \begin{cases} x^2 - 1 & \text{if } x > -2 \\ x - 5 & \text{if } x \leq -2 \end{cases}$ is

- a. infinity discontinuity when $x = -2$
- b. jump discontinuity when $x = -2$
- c. removable discontinuity when $x = -2$
- d. continuous when $x = -2$

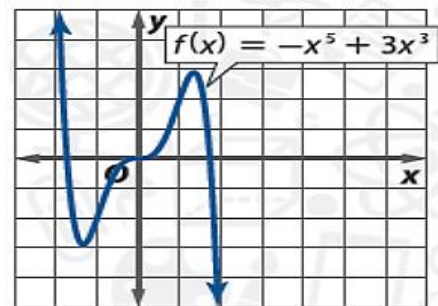
5a) the function increase

- a. $(-\infty, -2\frac{2}{3}) \cup (0, \infty)$
- b. $[-2\frac{2}{3}, 0]$
- c. $(-\infty, \infty)$
- d. $(-2\frac{2}{3}, 0)$



5b) the function Decrease

- a. $(-\infty, -1.34) \cup (1.34, \infty)$
- b. $[-1.34, 1.34]$
- c. $(-1.34, 1.34)$
- d. R



6a) the average rate of change of $g(x) = 3x^2 - 8x + 2; [4, 8]$

- a. 26
- b. 27
- c. 28
- d. 29

6b) the average rate of change of $f(x) = \frac{x-3}{x}; [5, 12]$

- a. 0.4
- b. 0.2
- c. 0.3
- d. 0.5

7a) if : $f(x) = x^2 + 5x + 6$, $g(x) = x + 2$ find $(f + g)(x)$

- a. $x^2 + 6x - 8$
- b. $x^2 + 5x + 8$
- c. $x^2 + 6x + 8$
- d. $x^2 - 6x + 8$

7b) if : $f(x) = 8 - x^3$, $g(x) = x - 3$ find $(f.g)(x)$

- a. $-x^4 + 3x^3 + 8x - 24$
- b. $-x^4 + 3x^3 - 8x - 24$
- c. $x^4 + 3x^3 + 8x - 24$
- d. $-x^4 + 3x^3 + 8x + 24$

7c) if : $f(x) = x^2 + 4$, $g(x) = \sqrt{x}$ find the domain of $(f - g)(x)$

- a. \mathbb{R}
- b. $x \geq 0$
- c. $(-\infty, 0)$
- d. \emptyset

7d) if : $f(x) = \frac{1}{\sqrt{x}}$, $g(x) = 4\sqrt{x}$ find the domain of $(\frac{f}{g})(x)$

- a. $(0, \infty)$
- b. $x \geq 0$
- c. $(-\infty, 0)$
- d. $R/\{0\}$

7e) if : $f(x) = \sqrt{x+6}$, $g(x) = \sqrt{x-4}$ find the domain of $(f.g)(x)$

- a. $(-6, 4)$
- b. $(-\infty, -6) \cup (4, \infty)$
- c. $(-\infty, -6] \cup [4, \infty)$
- d. $[-6, 4]$

7e) if : $f(x) = \sqrt{x+8}$, $g(x) = \sqrt{x+5} - 3$ find the domain of $(\frac{f}{g})(x)$

- a. $(-5, 4) \cup (4, \infty)$
- b. $(-5, \infty)$
- c. $[-5, \infty)$
- d. R

8a) if : $f(x) = -2x^2 - 5x + 1$, $g(x) = -5x + 6$ find $(f \circ g)(x)$

- a. $-50x^2 + 145x + 101$
- b. $-50x^2 - 145x - 101$
- c. $-50x^2 + 145x - 101$
- d. $50x^2 + 145x - 101$

8b) if : $f(x) = x^2 - 9$, $g(x) = \sqrt{x + 3}$ find $(f \circ g)(x)$

- a. $x^2 - 6$
- b. $x^2 + 6$
- c. $x - 6$
- d. $x + 6$

8c) if : $f(x) = x^2 - 9$, $g(x) = \sqrt{x + 3}$ find the domain of $(f \circ g)(x)$

- a. $(-\sqrt{3} , \sqrt{3})$
- b. $R/\{-\sqrt{3} , \sqrt{3}\}$
- c. $[-\sqrt{3} , \sqrt{3}]$
- d. R

8c) if : $f(x) = \sqrt{x+4}$, $g(x) = x^2 - 4$ find the domain of $(g \circ f)(x)$

- a. $(-4, 4)$
- b. $R/\{4, -4\}$
- c. $[-4, \infty)$
- d. R

8d) if : $f(x) = \frac{5}{x}$, $g(x) = \sqrt{6-x}$ find the domain of $f(g(x))$

- a. $(6, \infty)$
- b. $[6, \infty)$
- c. $(-\infty, 6)$
- d. $(-\infty, 6]$

9a) find the range of $f(x) = 0.2^{x+2}$

- a. $y > 0$
- b. $y \geq 0$
- c. $y > 2$
- d. $y \geq 2$

9b) y-intercept of $2^x - 3$

- a. -2
- b. -3
- c. 1
- d. 0

9c) the end behavior of $f(x) = \left(\frac{1}{3}\right)^x$

- a. $\lim_{x \rightarrow \infty} f(x) = -\infty$, $\lim_{x \rightarrow -\infty} f(x) = \infty$
- b. $\lim_{x \rightarrow \infty} f(x) = \infty$, $\lim_{x \rightarrow -\infty} f(x) = -\infty$
- c. $\lim_{x \rightarrow \infty} f(x) = -\infty$, $\lim_{x \rightarrow -\infty} f(x) = -\infty$
- d. $\lim_{x \rightarrow \infty} f(x) = 0$, $\lim_{x \rightarrow -\infty} f(x) = \infty$

9d) the end behavior of $f(x) = \left(\frac{1}{3}\right)^x$

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- b. $\lim_{x \rightarrow \infty} f(x) = \infty$, $\lim_{x \rightarrow -\infty} f(x) = -\infty$
- c. $\lim_{x \rightarrow \infty} f(x) = -\infty$, $\lim_{x \rightarrow -\infty} f(x) = -\infty$
- d. $\lim_{x \rightarrow \infty} f(x) = 0$, $\lim_{x \rightarrow -\infty} f(x) = \infty$

10a) suppose Khadija finds account that will allow her to invest her AED300 at a 6% invest rate compounded continuously. if there are no other deposits or withdrawals, what will Khadija's account balance be after 20 years?

- a. AED 969.04
- b. AED 996.04
- c. AED 996.4
- d. AED 999.04

10b) ahmed acquired an inheritance of AED 20000 at age 8, but he will not have access to it until he turns 18. if the money earning 4.6% compounded monthly . how much he inheritance on his 18th birthday

- a. 13653.63
- b. 31653.63
- c. 36153.63
- d. 331456.63

11a) the function $f(x) = 0.2^{-x}$ is

- a. increase on $(0, -\infty)$
- b. decrease on $[0, \infty)$
- c. increase on R
- d. decrease on R

12a) evaluate : $\log_2 \sqrt[5]{32}$

- a. 2
- b. 0
- c. 5
- d. 1

12b) evaluate: $36 \ln e^{0.5} - 4 \ln e^5$

- a. -2
- b. 2
- c. -1
- d. -2

13a) solve : $\log (29,995x + 40,225) = 4 + \log (3x + 4)$

- a. 40
- b. 45
- c. 42
- d. 32

13b) solve : $\log_{\frac{1}{4}} \left(\frac{1}{4}x \right) = -\log_{\frac{1}{4}} (x + 8) - \frac{5}{2}$

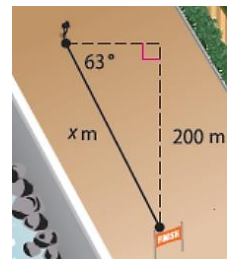
- a. 8
- b. 9
- c. 10
- d. 7

13c) solve : $\log 2x + \log \left(4 - \frac{16}{x} \right) = 2 \log (x - 2)$

- a. 6
- b. -6
- c. 6 , -6
- d. \emptyset

14a) A competitor in a triathlon is running along the course shown. Determine the length in meter that the runner must cover to reach the finish line.

- a. 224
- b. 225
- c. 226
- d. 227



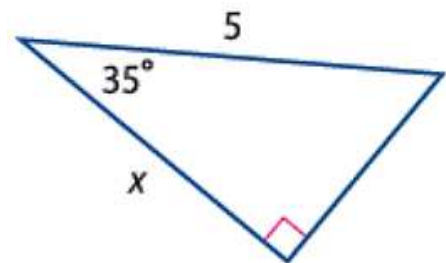
14b) suppose a competitor in the swimming portion of the race is swimming along the course shown. find the distance the competitor must swim to reach the shore.

- a. 82
- b. 82.3
- c. 83.3
- d. 38.3



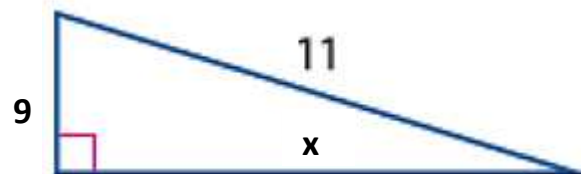
15a) find the value of x to the nearest tenth

- a. 4.09
- b. 4.90
- c. 4.01
- d. 4.1



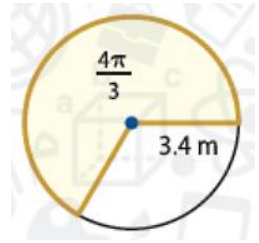
15b) find the value of x to the nearest degree

- a. 50
- b. 55
- c. 60
- d. 65



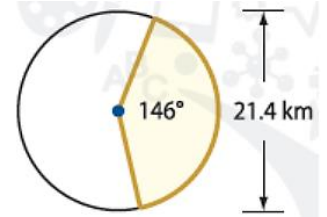
16a) find the area of a sector.

- a. 23.2
- b. 7.1
- c. 24.2
- d. 25



16b) find the area of a sector.

- a. 145.9
- b. 8357.77
- c. 13.6
- d. 15



16d) the dart board shown is divided into twenty equal sectors. if the diameter of the board is 18 in, what area of the board does each sector cover?

- a. 12.7
- b. 13.7
- c. 14.7
- d. 15.7



17a) the vertical asymptote of $y = \tan\left(x + \frac{\pi}{4}\right)$

- a. $-\frac{3\pi}{4} + n\pi, n \in Z$
- b. $\frac{3\pi}{4} + n\pi, n \in Z$
- c. $-\frac{3\pi}{4} + 2n\pi, n \in Z$
- d. $\frac{3\pi}{4} - n\pi, n \in Z$

17b) the vertical asymptote of $y = \cot\left(x - \frac{\pi}{6}\right)$

- a. $\frac{\pi}{6} - n\pi, n \in Z$
- b. $-\frac{\pi}{6} + n\pi, n \in Z$
- c. $\frac{\pi}{6} + 2n\pi, n \in Z$
- d. $\frac{\pi}{6} + n\pi, n \in Z$

18a) find the exact value of : $\arcsin \frac{\sqrt{3}}{2}$

- a. $\frac{\pi}{6}$
- b. $\frac{\pi}{4}$
- c. $\frac{\pi}{2}$
- d. $\frac{\pi}{3}$

18b) find the exact value of : $\sin^{-1} 0$

- a. $\frac{\pi}{3}$
- b. 0
- b. $\frac{\pi}{6}$
- d. $\frac{\pi}{2}$

19) which random variable is continuous

- a. the number of pages linked to a Web page
- b. the number of stations in a cable package
- c. the amount of precipitation in a city per month
- d. the number of cars passing through an intersection in a given time interval

20a) A contestant has won one spin of the wheel at the right. find the expected value of his winnings.

- a. AED 8000
- b. AED 8100
- c. AED 8200
- d. AED 8300



20b) Hareb won a ticket for a prize. The distribution of the values of the tickets their relative frequencies are shown. Find the expected value of his winnings.

Value (AED)	1	10	100	1000	5000	25,000
Frequency	5000	100	25	5	1	1

- a. 7.48
- b. 8.48
- c. 6.48
- d. 9.48