

## ملزمة 2 أسئلة القسم الالكتروني والكتابي وفق الهيكل الوزاري منهج ريفيل



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المزيد من مادة  
رياضيات:

إعداد: Dsouza Daryl Justin

### التواصل الاجتماعي بحسب الصف العاشر المتقدم



صفحة المناهج  
الإماراتية على  
فيسبوك

الرياضيات

اللغة الانجليزية

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التربية الاسلامية

المواد على تلغرام

### المزيد من الملفات بحسب الصف العاشر المتقدم والمادة رياضيات في الفصل الثاني

حل ملزمة 1 أسئلة القسم الالكتروني وفق الهيكل الوزاري منهج ريفيل

1

ملزمة 1 أسئلة القسم الالكتروني وفق الهيكل الوزاري منهج ريفيل

2

أسئلة الامتحان النهائي القسم الورقي منهج بريدج

3

حل بالخطوات أسئلة امتحان نهائي سابق منهج بريدج القسم الالكتروني

4

حل النموذج التدريبي للاختبار النهائي وفق الهيكل الوزاري منهج بريدج

5



# ***G10Adv EoT2 Practice Exam 2***

## ***Part I Electronic (MCQ)***



10Adv Part 1 Multiple Choice | MCQ | EoT2 | Circle, probability, equations & quadratics | Q1 - Q15 |

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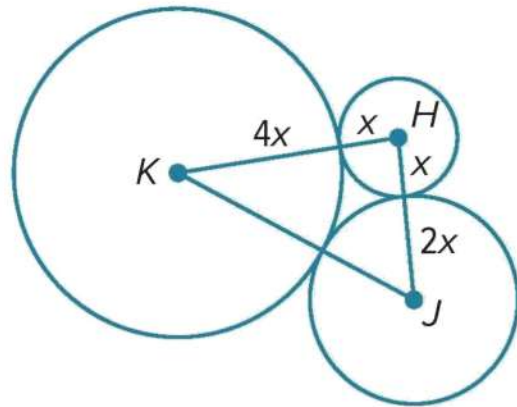
Let's Start!



**Question 1:** Use trigonometric identities to simplify expressions.

- 1) The sum of the circumferences of circles H, J, and K shown at the right is  $56\pi$  units. Find KJ.

- A) 21 units
- B) 24 units
- C) 30 units
- D) 44 units



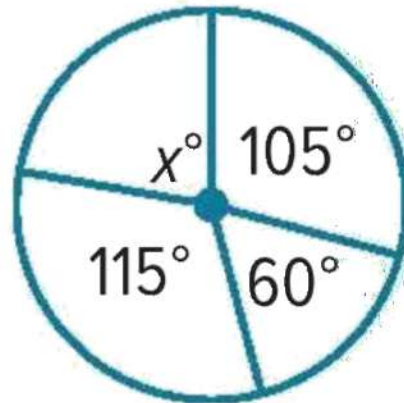
- 2) Taiga wants to make a circular hoop that he can twirl around his body for exercise. He will use a tube that is 2.5 meters long. What will be the diameter of Taiga's exercise hoop? Round your answer to the nearest thousandth of a meter.
- A) 0.398 meter
  - B) 0.514 meter
  - C) 0.696 meter
  - D) 0.796 meter



**Question 2: Measuring Angles and Arcs.**

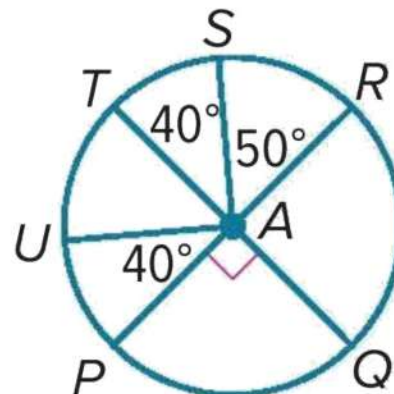
1) Find the value of  $x$ .

- A)  $60^\circ$
- B)  $80^\circ$
- C)  $120^\circ$
- D)  $180^\circ$



2)  $\overline{PR}$  and  $\overline{QT}$  are diameters of  $\odot A$ . Find the measure of  $\widehat{PRU}$ .

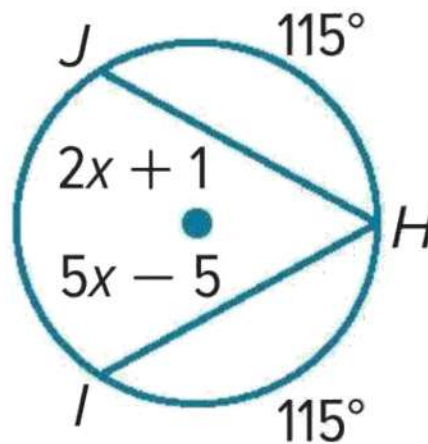
- A)  $120^\circ$
- B)  $180^\circ$
- C)  $320^\circ$
- D)  $480^\circ$



**Question 3: Arcs and Chords.**

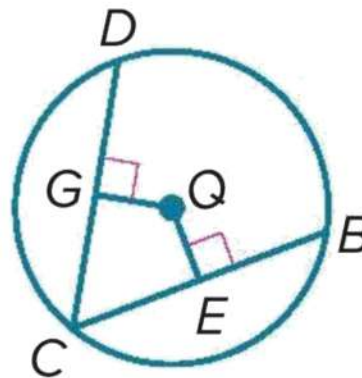
1) Find the value of  $x$ .

- A) 1
- B) 2
- C) 4
- D) 6



2) In  $\odot Q$ ,  $\overline{CD} \cong \overline{CB}$ ,  $GQ = x + 5$ , and  $EQ = 3x - 6$ . What is the value of  $x$ .

- A) 2.5
- B) 5.5
- C) 7
- D) 9

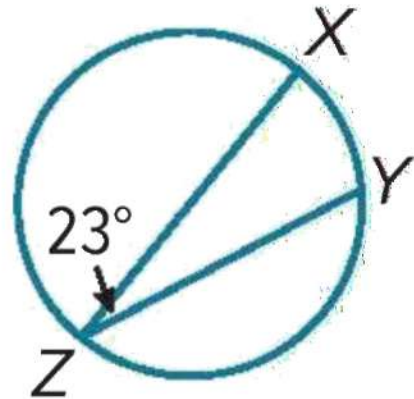




**Question 4: Inscribed Angles.**

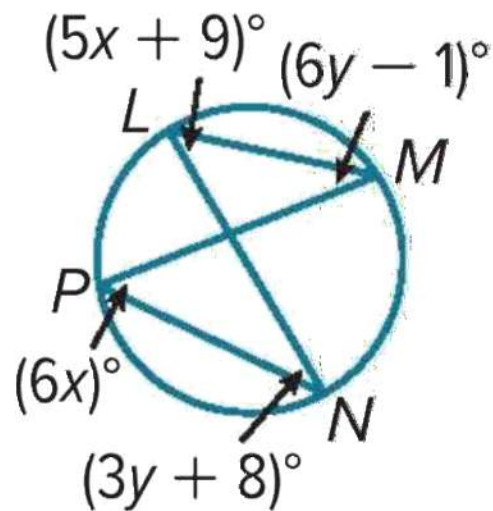
1) Find the measure of  $\widehat{XY}$

- A)  $31^\circ$
- B)  $46^\circ$
- C)  $50^\circ$
- D)  $72^\circ$



2) Find the measure of  $\angle L$

- A)  $17^\circ$
- B)  $43^\circ$
- C)  $54^\circ$
- D)  $89^\circ$





### Question 5: Sample Spaces.

- 1) One state requires license plates to consist of three letters followed by three numbers. The letter “O” and the number “0” may not be used, but any other combination of letters or numbers is allowed. How many different license plates can be created?
- A) 455,625  
B) 1,265,625  
C) 11,390,625  
D) 22,781,250
- 2) Angelica is comparing vacation prices in Boulder, Colorado, and Sarasota, Florida. In Boulder, she can choose a 1- or 2-week stay in a 1- or 2-bedroom suite. In Sarasota, she can choose a 1-, 2-, or 3-week stay in a 2- or 3-bedroom suite, on the beach or not. How many total outcomes are available?
- A) 9  
B) 14  
C) 16  
D) 21

**Question 6: Probability and Counting.**

- 1) In Evan's senior class of 240 students, 85% are planning to attend college after graduation. What is the probability that a senior chosen at random is not planning to attend college after graduation?
- A) 0.15  
B) 0.45  
C) 0.65  
D) 0.9
- 2) Raul brought 24 raffle tickets out of 1545 tickets sold. What is the probability that Raul will not win the grand prize of the raffle?
- A) 0.33  
B) 0.57  
C) 0.98  
D) 1.28





### Question 7: Probability and the Multiplication Rule.

- 1) A bag contains 3 red marbles, 2 green marbles and 4 blue marbles. A marble is drawn randomly from the bag and replaced before a second marble is chosen. Find the probability that both marbles are blue.
- A) 15%
  - B) 20%
  - C) 35%
  - D) 50%
- 2) A card is drawn from a standard deck of playing cards and is not replaced. Then a second card is drawn. Find the probability the first card is a jack of spades, and the second card is black.
- A) 1%
  - B) 2%
  - C) 5%
  - D) 10%

**Question 8: Two-Way Frequency Tables.**

- 1) Paz asks a random sample of seniors of her high school whether they own a car and whether they have a job. The results of the survey are shown in the two-way relative frequency table. Paz says that the conditional probability that a student has a job given that he or she has a car is 46.7%. Is it true? If false, find the correct probability. .

|                     | Has a Job | Does Not Have a Job | Totals |
|---------------------|-----------|---------------------|--------|
| Has a Car           | 21.9%     | 12.5%               | 34.4%  |
| Does Not Have a Car | 25%       | 40.6%               | 65.6%  |
| Totals              | 46.9%     | 53.1%               | 100%   |

- A) False; 21.9%  
B) False 63.7%  
C) False; 46.7%  
D) True; 46.7%

- 2) The two-way frequency table compares data about students in a class who completed or did not complete homework and those who passed or did not pass an exam. How many students completed their homework and passed the exam? Identify whether marginal or joint frequencies are used.

- A) 18; marginal frequency  
B) 20; joint frequency  
C) 22; marginal frequency  
D) 18 joint frequency

|                   | Completed Homework | Did Not Complete Homework | Totals |
|-------------------|--------------------|---------------------------|--------|
| Passed Exam       | 18                 | 2                         | 20     |
| Did Not Pass Exam | 4                  | 2                         | 6      |
| Totals            | 22                 | 4                         | 26     |



**Question 9: Solving Systems of Equations Graphically.**

- 1) Determine the number of solutions for each system. Then state whether the system of equation is consistent or inconsistent and whether it is independent or dependent.

$$y = x - 5$$

$$-2x + 2y = -10$$

- A) 1; consistent and independent
- B) 1; inconsistent and dependent
- C) Infinite solutions; consistent and dependent
- D) No solution; inconsistent

- 2) Solve the system of equations

$$y - x = 3$$

$$y = 1$$

- A) (0, 2)
- B) (-2, 1)
- C) (1, -2)
- D) No solution



### Question 10: Solving Systems of Equations Algebraically.

1) Use substitution to solve each system of equations.

$$6w - 8z = 16$$

$$3w - 4z = 8$$

A) (0, 3)

B) (-3, 3)

C) Infinitely many solutions

D) No solution

2) Cassandra and Alberto are selling pies for a fundraiser. Cassandra sold 3 small pies and 14 large pies for a total of AED 203. Alberto sold 11 small pies and 11 large pies for a total of AED 220. Determine the cost of each pie.

Write a system of equations and solve by substitution.

A) Small pie is AED 13 and large pie is AED 23

B) Small pie is AED 14 and large pie is AED 26

C) Small pie is AED 13 and large pie is AED 7

D) Small pie is AED 7 and large pie is AED 13





## Question 11: Systems of Equations in Three Variables.

1) Solve the system of equations.

$$3s - t + u = 5$$

$$3s + 2t - u = 11$$

$$6s - 3t + 2u = -12$$

A)  $\left(-5, 2, \frac{2}{3}\right)$

B)  $\left(\frac{2}{3}, 2, -5\right)$

C) Infinitely many solutions

D) No solution

2) At the arcade, Marcos, Sara, and Darius played video racing games, pinball, and air hockey. Marcos spent AED60 for 6 racing games, 2 pinball games, and 1 game of air hockey. Sara spent AED 120 for 3 racing games, 4 pinball games, and 5 games of air hockey. Darius spent AED122.5 for 2 racing games, 7 pinball games, and 4 games of air hockey. How much did each games cost?

A) Racing games = AED 15, pinball = AED 7.5 & hockey = AED 5

B) Racing games = AED 5, pinball = AED 10 & hockey = AED 15

C) Racing games = AED 5, pinball = AED 7.5 & hockey = AED 15

D) Racing games = AED 2.5, pinball = AED 7.5 & hockey = AED 10



**Question 12: Graphing Quadratic Functions.**

Determine the average rate of change of  $f(x)$  over the specified interval.

1)  $f(x) = 2x^2 - 11$ ; interval  $[-3, 3]$

- A) 0
- B) 2
- C) 5
- D) 10

2) interval  $[-2, 2]$

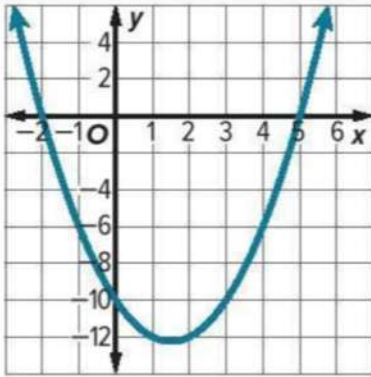
- A) 0
- B) -2
- C) -4
- D) -6

| $x$ | $f(x)$ |
|-----|--------|
| -2  | 12     |
| -1  | 5      |
| 0   | 0      |
| 1   | -3     |
| 2   | -4     |

**Question 13: Solving Quadratic Equations by Graphing.**

1) Use the related graph of each equation to determine its solutions.

$$x^2 - 3x - 10 = 0$$



- A) 2, 5
- B) -2, 5
- C) -4, 10
- D) 2, -2

2) Use a quadratic equation to find two real numbers with a sum of 2 and a product of -24.

- A) 4 & 2
- B) 6 & -4
- C) 3 & 4
- D) No numbers are possible

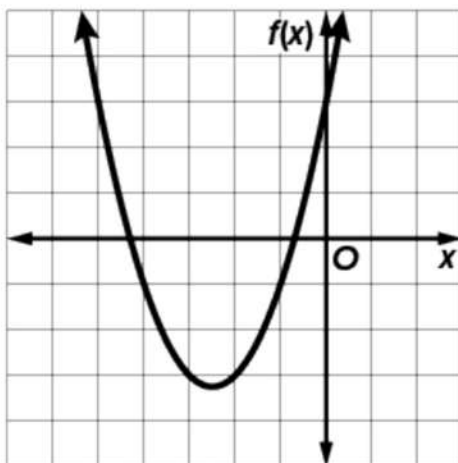


### Question 13: Solving Quadratic Equations by Graphing (Continued).

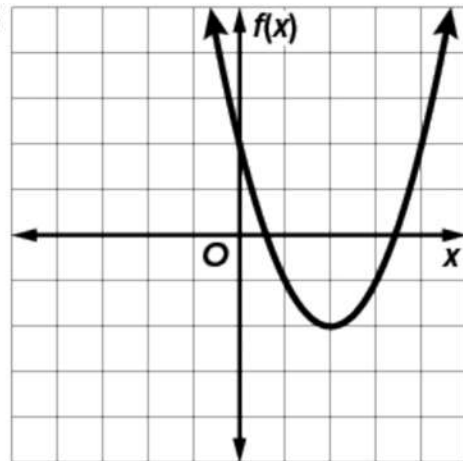
3) Solve the equation by graphing.

$$x^2 - 4x + 2 = 0$$

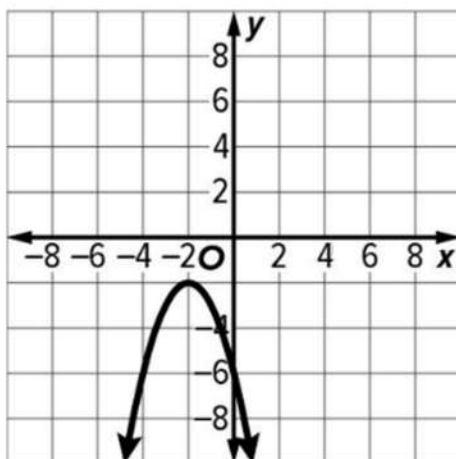
A)



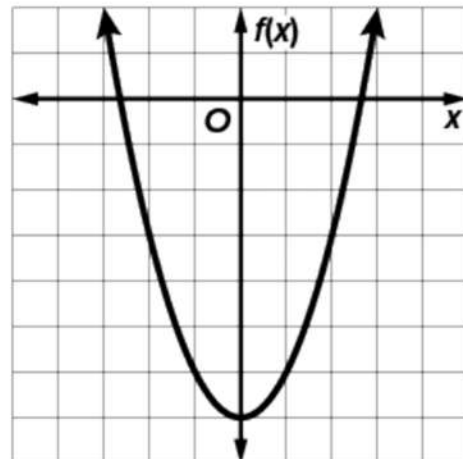
C)



B)



D)



**Question 14: Complex Number.**

1) Find the values of  $x$  and  $y$  that make the equation true.

$$x - 16i = 3 - (2y)i$$

A)  $x = 8, y = 3$

B)  $x = 3, y = 8$

C)  $x = 13, y = 18$

D)  $x = 3, y = 3$

2) Simplify  $\frac{5}{3+i}$

A)  $-\frac{13}{2} + \frac{7}{2}i$

B)  $-\frac{5}{3} - 2i$

C)  $\frac{3}{2} - \frac{1}{2}i$

D)  $11 + 3i$

**Question 15: Graphing Quadratic Functions.**

Solve each equation by factoring.

1)  $81x^2 + 36x = -4$

- A) 0
- B)  $-\frac{2}{9}$
- C)  $-\frac{8}{5}$
- D)  $\frac{3}{4}$

2)  $x^2 + 12 = -13$

- A) 0
- B)  $\pm 2i$
- C)  $\pm 5i$
- D)  $\pm 15$





# ***G10Adv EoT2 Practice Exam 2***

## ***Part 2 Writing (FRQ)***



10Adv Part 2 Writing | FRQ | EoT2 | Circles, probability, parabolas & complex numbers | Q16 - Q21 |

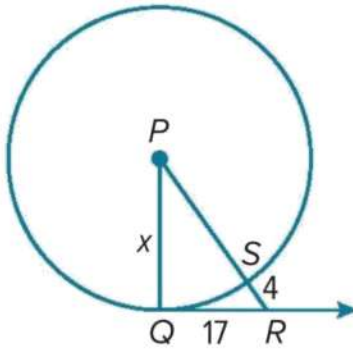
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**Question 16: Use properties of tangents.**

Find the value of  $x$ . Assume that the segments that appear to be tangent are tangent. Round your answer to the nearest hundredth.





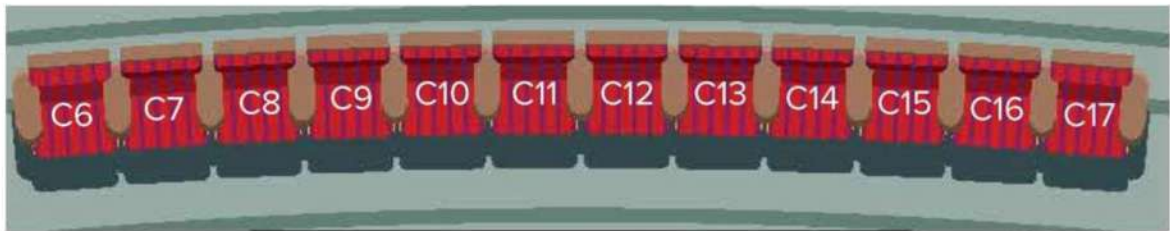
### **Question 17: Probability and the Addition Rule & Conditional Probability.**

A spinner numbered 1 through 12 is spun. Find the probability that the number spun is an 11 given that the number spun was an odd number.



### Question 18: Probability with Permutations and Combinations.

Nia and Ciro are going to a concert with their high school's key club. If they choose a seat in the row below at random, what is the probability that Ciro will be in seat C11 and Nia will be in C12?.





## Question 19: Solving Absolute Value Equations and Inequalities by Graphing.

Solve the equation by graphing.

$$|x + 2| + 5 = 13$$





**Question 20: Using the Quadratic Formula and the Discriminant.**

Find the value of the discriminant for each quadratic equation. Then describe the number and type of roots for the equation.

$$2x^2 - 3x = -2$$