



الاجابات نهائية الامتحان

Q1

Multiple choice

1. The following mathematical expression $29 + L = 68$ IS
a. numerical expressions b. an equation c. algebraic expressions
2. In a furniture shop, a table comes with six chairs. Which of the formulae below connects the number of tables, T , and the number of chairs, C ?
a. $C = T + 6$ b. $C = 6T$ c. $T = 6C$ D. $T = C + 6$
3. Explain the meaning the expressions y^2 .
a. squared y b. multiply y by 2 c. 2 more than y
4. If b cm is the length of a rectangle and c cm is the width, write down a formula for W if the perimeter of the rectangle is W cm.
a. $W = b \times c$ b. $W = 2b \times 2c$ c. $W = b + c$ d. $W = 2b + 2c$
5. The constants in the following equation $F + 2 = 6$ is
a. 2 and 6 b. 2 c. 6 d. F
6. The following mathematical expression $27 - 20 \times 5$ IS
a. numerical expressions b. an equation c. an algebraic expressions
7. Using the letter n , write an equation to represent the following: *I'm thinking of a number. I triple it then add 2 and get an answer of 26*
A. $2n + 3 = 26$ B. $3n + 2 = 26$ C. $3n + 26 = 2$ d. $3n + 26 = 2$
- 8 -The coefficient of algebraic term $2x + 5$
a. 2 b. x c. $2x$ d. 5





9. The like terms in the algebraic expression $(5n + 2n + 5)$ are ...
A. $5n, 2n$ B. $-n, n$ C. $5, 5$ D. $5, 5n$
10. The following mathematical expression $S - 4 \times 7$ IS
a. a numerical expressions b. an equation c. an algebraic expressions
11. The constant in the algebraic expression $5y + 8$ is.....
A. $5y$ B. $5, 8$ C. 5 D. 8
12. $5^2 + 6^2 \div 9 =$
A. 54 B. 25 C. 24 D. 29
13. $9 - 7 \div 1 =$
A. 2 B. -3 C. 6 D. $1/2$
14. $3 \times 5 - 1 =$
A. 11 B. 14 C. 12 D. 9
15. If: $y + 3 = 4$, then $4y =$
A. 1 B. -1 C. 4 D. 7
16. If the price of one pen equals 9 L.E., then the price of 4 pens =
A. 13 B. 36 C. $9/4$ D. $4/9$
17. $2 \times 2 \times 2 \times 2 \times 2 =$
A. 25 B. 10 C. 2^5 D. 2×5



18. The value of the expression $4C + 5$ if $C = 0$ is.....

- A. 5 B. 4 c. 9 d. 1

19. $3 - 7 + 8 =$

- A. 15 B. -15 C. -4 D. 4

20. If: $z - 2 = 3$, then $z + 4 =$

- A. 1 B. 7 C. 9 D. 5

21. If the price of one book is 50 Egyptian pounds, then the price of x book is

- A. $50x$ B. $50 + x$ c. $50/x$ d. $x/50$

22. $2 - 5 \div 1 + 9 =$

- A. -3 B. 6 C. 0 D. 2

23. $9 + 4 \times 5$

- A. 81 B. 65 C. 29 D. 18

24. The value of the expression $3 + 6x + 2x$ if $x = 1$ is.....

- A. 10 B. 11 C. 9 D. 8

25. If: $8x = 0$, then, $100x =$

- A. 1 B. 100 C. 8 D. 0

26. $6 \times 2 + 2 =$

- A. 8 B. 10 C. 12 D. 14



27. If $x = 1$ then $1^9 = \dots\dots\dots$

- A. 1 B. 9 C. $1/9$ D. 0.9

28. Fred is 21 years old. Hannah is y years younger than Fred. Write an expression for Hannah's age.

- A. $y-21$ B. $21-y$ C. $y+21$ D. $y/21$

29. which of the following expression has the same value of $(2x+2)$ at $x=1$

- A. $5x+1$ B. $4x-1$ C. $3x+2$ D. $4x$

30. If $4x = 8$, then The value of x isline

- A. 32 B. 2 C. 0.5 D. 4

Q2

Write an algebraic expression for each phrase

- 12 more than m
- x times 6
- 25 less than a
- s divided by 10
- the sum of 6 and k
- twice x
- 4 more than twice p

Q3

Simplify each expression using the correct order of operations

- $(3 \times 4) \div (7 + 9 - 10)$



الفصل الدراسي
الأول
2024/2023

Lesson 1

Unit THREE

الصف
Sixth

المادة
Math



- $8 \times (10 - 6) \div 2 + 4$

- $(10 \div 2) \times 7 + 5 - 4$

- $6 \times (8 - 3 + 5) \div 10$

- $10 - 6 \times 5 \div (2 + 4)$

- $(4 + 8 \div 2 - 6) \times 10$

- $7 \div (4 \times 2 + 9 - 10)$

- $((10 - 6 + 5) \div 9) \times 2$

- $(10 - 6 + 8 \div 2) \times 3$



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Q4

In one week, Aya spent x minutes on the internet. Sammy spent 15 minutes less than Aya.

(a) Write down an expression for how long Sammy spent on the internet

(b) Ali spent three times as long as Aya on the internet

Write down an expression for how long Ali spent on the internet.

(c) Write down an expression for total time spent on the internet.



Q5

Complete the following table

Value of x	Have the same value or not	$(X + 1)^2$	$2X + 5$
If $(X = 2)$			
If $(X = 3)$			
Value of x	Have the same value or not	$4X + 4$	$(X + 3)^2$
If $(X = 1)$			
If $(X = 2)$			
Value of x	Have the same value or not	$X + 2$	$(4 + 2X)^2$
If $(X = 2)$			
If $(X = 3)$			

Q8

Find the value

❖ $6 \div (8X - 3)$ if $(x = 0.5) =$

❖ $19X \div 10 + 5 + 4$ if $(x = 10) =$



❖ $4 \times p^3 - 20$ if $(p = 2) =$

❖ $p^3 + [4 + (2 - 1)]$ if $(p = 2) =$

❖ $P^3 + [5 - (3 + 1)]$ if $(p = 2) =$

❖ $9 + (p^2 - 3) \div 2$ if $(p = 5)$

Q9

Find the value of the followings

❖ $2^3 + 3^2 =$

❖ $0 \times 4^2 =$

❖ $6 + (17 - 7) \div 2 =$

❖ $20 \div 10 + 3 \times 2 =$

❖ $3^2 + (60 - 15) \div 5 =$

❖ $3^2 \times [9 - (4 + 2)] =$

❖ $5 + 2 [3 + 2(7 - 4)] =$



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Q11

Complete the following table

algebraic expression	Coefficient	Constant	Like terms	Number of terms
$m + 3 + 2m + 2$				
6				
$7x + 5x + 2 + 2x$				
$16y + 2z$				
6D				
$p^2 + 2s - 7s + 22$				



الإجابات نهائية الامتحان

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3. Explain the meaning of each of these expressions y^2 .
- a. **squared y** b. multiply y by 2 c. 2 more than y
4. If b cm is the length of a rectangle and c cm is the width, write down a formula for W if the perimeter of the rectangle is W cm.
- a. $W = b \times c$ b. $W = 2b \times 2c$ c. $W = b + c$ d. **$W = 2b + 2c$**
5. the constants in the following equation $F + 2 = 6$ is
- a. **2 and 6** b. 2 c. 6 d. F
- 6 the following mathematical expression $27 - 20 \times 5$ IS
- a. **numerical expressions** b. an equation c. an algebraic expressions
8. Using the letter n , write an equation to represent the following: *I'm thinking of a number. I triple it then add 2 and get an answer of 26*
- A. $2n + 3 = 26$ B. **$3n + 2 = 26$** C. $3n + 26 = 2$ d. $3n + 26 = 2$
- 8 -The coefficient of algebraic term $2x + 5$
- a. **2** b. x c. 2x d. 5



18. The like terms in the algebraic expression $(5n + 2n + 5)$ are ...
A. **5n, 2n** B. - n, n C. 5, 5 D. 5, 5n
19. The following mathematical expression $S - 4 \times 7$ IS
a. a numerical expressions b. an equation c. **an algebraic expressions**
20. The constant in the algebraic expression $5y + 8$ is.....
A. 5y B. 5, 8 C. 5 **D. 8**
21. $5^2 + 6^2 \div 9 =$
A. 54 B. 25 C. 24 **D. 29**
22. $9 - 7 \div 1$
A. 2 B. 3 C. 6 D. 1/2
23. $3 \times 5 - 1 =$
A. 11 **B. 14** C. 12 D. 9
24. If: $y + 3 = 4$, then $4y =$
A. 1 B. -1 **C. 4** D. 7
25. If the price of one pen equals 9 L.E., then the price of 4 pens =
A. 13 B. **36** C. 9/4 D. 4/9
26. $2 \times 2 \times 2 \times 2 \times 2 =$
A. 25 B. 10 **C. 2⁵** D. 2x5



18. The value of the expression $4C + 5$ if $C = 0$ is.....

- A. 5 B. 4 c. 9 d. 1

19. $3 - 7 + 8 =$

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- A. $50x$ B. $50 + x$ c. $50/x$ d. $x/50$

30. $2 - 5 \div 1 + 9 =$

- A. -3 B. 6 C. 0 D. 2

31. $9 + 4 \times 5$

- A. 81 B. 65 C. 29 D. 18

32. The value of the expression $3 + 6x + 2x$ if $x = 1$ is.....

- A. 10 B. 11 C. 9 D. 8

33. If: $8x = 0$, then, $100x =$

- A. 1 B. 100 C. 8 D. 0

34. $6 \times 2 + 2 =$

- A. 8 B. 10 C. 12 D. 14



35. If $x = 1$ then $1^9 = \dots\dots\dots$

- A. 1 B. 9 C. $1/9$ D. 0.9

28. Fred is 21 years old. Hannah is y years younger than Fred. Write an expression for Hannah's age.

- A. $y - 21$ B. $21 - y$ C. $y + 21$ D. $y/21$

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31. If $4x = 8$, then The value of x isline

- A. 32 B. 2 C. 0.5 D. 4

Q2

Write an algebraic expression for each phrase

- 12 more than m $12 + m$ or $m + 12$
- x times 6 $6x$
- 25 less than a $a - 25$
- s divided by 10 $s/10$
- the sum of 6 and k $6 + k$ or $k + 6$
- twice x $2x$
- 4 more than twice p $2p + 4$ or $4 + 2p$

Q3

Simplify each expression using the correct order of operations

- $(3 \times 4) \div (7 + 9 - 10)$
 $= 12 \div (7 + 9 - 10)$
 $= 12 \div (16 - 10)$
 $= 12 \div 6$
 $= 2$



$$\begin{aligned} & \bullet \quad 8 \times (10 - 6) \div 2 + 4 \\ & = 8 \times 4 \div 2 + 4 \\ & = 32 \div 2 + 4 \\ & = 16 + 4 \\ & = 20 \end{aligned}$$

$$\begin{aligned} & \bullet \quad (10 \div 2) \times 7 + 5 - 4 \\ & = 5 \times 7 + 5 - 4 \\ & = 35 + 5 - 4 \\ & = 40 - 4 \\ & = 36 \end{aligned}$$

$$\begin{aligned} & \bullet \quad 6 \times (8 - 3 + 5) \div 10 \\ & = 6 \times (5 + 5) \div 10 \\ & = 6 \times 10 \div 10 \\ & = 60 \div 10 \\ & = 6 \end{aligned}$$

$$\begin{aligned} & \bullet \quad 10 - 6 \times 5 \div (2 + 4) \\ & = 10 - 6 \times 5 \div 6 \\ & = 10 - 30 \div 6 \\ & = 10 - 5 \\ & = 5 \end{aligned}$$

$$\begin{aligned} & \bullet \quad (4 + 8 \div 2 - 6) \times 10 \\ & = (4 + 4 - 6) \times 10 \\ & = (8 - 6) \times 10 \\ & = 2 \times 10 \\ & = 20 \end{aligned}$$



$$\begin{aligned} & \bullet 7 \div (4 \times 2 + 9 - 10) \\ &= 7 \div (8 + 9 - 10) \\ &= 7 \div (17 - 10) \\ &= 7 \div 7 \\ &= 1 \end{aligned}$$

$$\begin{aligned} & \bullet ((10 - 6 + 5) \div 9) \times 2 \\ &= ((4 + 5) \div 9) \times 2 \\ &= (9 \div 9) \times 2 \\ &= 1 \times 2 \\ &= 2 \end{aligned}$$

$$\begin{aligned} & \bullet (10 - 6 + 8 \div 2) \times 3 \\ &= (10 - 6 + 4) \times 3 \\ &= (4 + 4) \times 3 \\ &= 8 \times 3 \\ &= 24 \end{aligned}$$

Q4

In one week, Aya spent x minutes on the internet. Sammy spent 15 minutes less than Aya.

(d) Write down an expression for how long Sammy spent on the internet

$$x-15$$

(e) Ali spent three times as long as Aya on the internet

Write down an expression for how long Ali spent on the internet.

$$3x$$

(f) Write down an expression for total time spent on the internet.

$$X + (x-15) + 3x = 5x -15$$



Q5

Complete the following table

Value of x	Have the same value or not	$(X + 1) 2$	$2X + 5$
If $(X = 2)$	No	$(1 + 2) 2$ $3 \times 2 = 6$	$2(2) + 5$ $4 + 5 = 9$
If $(X = 3)$	No	$(3 + 1) 2$ $4 \times 2 = 8$	$2(3) + 5$ $6 + 5 = 11$
Value of x	Have the same value or not	$4X + 4$	$(X + 3) 2$
If $(X = 1)$	Yes	$4(1) + 4$ $4 + 4 = 8$	$(1 + 3) 2$ $4 \times 2 = 8$
If $(X = 2)$	No	$4(2) + 4$ $4 + 8 = 12$	$(2 + 3) 2$ $5 \times 2 = 10$
Value of x	Have the same value or not	$X + 2$	$(4 + 2X) 2$
If $(X = 2)$	No	$2 + 2 = 4$	$(4 + 2(2)) 2$ $(4 + 4) 2$ $8 \times 2 = 16$
If $(X = 3)$	No	$3 + 2 = 5$	$(4 + 2(3)) 2$ $(4 + 6) 2$ $10 \times 2 = 20$

Q8

Find the value

❖ $6 \div (8X - 3)$ if $(x = 0.5) = 6 \div (8(0.5) - 3) = 6 \div (4 - 3) = 6 \div 1 = 6$

❖ $19X \div 10 + 5 + 4$ if $(x = 10) =$
 $19(10) \div 10 + 5 + 4 = 190 \div 10 + 5 + 4 = 19 + 5 + 4$
 $= 24 + 4 = 28$





$$\diamondsuit 4 \times p^3 - 20 \text{ if } (p = 2) = 4 \times (2)^3 - 20 = 4 \times 8 - 20 = 32 - 20 = 12$$

$$\diamondsuit p^3 + [4 + (2 - 1)] \text{ if } (p = 2) = (2)^3 + [4 + (2 - 1)] = 8 + [4 + (2 - 1)] = 8 + [4 + 1] \\ = 8 + 5 = 13$$

$$\diamondsuit P^3 + [5 - (3 + 1)] \text{ if } (p = 2) = (2)^3 + [5 - (3 + 1)] = 6 + [5 - (3 + 1)] = 6 + [5 - 4] \\ = 6 + 1 = 7$$

$$\diamondsuit 9 + (p^2 - 3) \div 2 \text{ if } (p = 5) = 9 + (5^2 - 3) \div 2 = 9 + (25 - 3) \div 2 = 9 + (22) \div 2 \\ = 9 + 11 = 20$$

Q9

Find the value of the followings

$$\diamondsuit 2^3 + 2^2 = 8 + 4 = 12$$

$$\diamondsuit 2^3 + 3^2 = 8 + 9 = 17$$

$$\diamondsuit 0 \times 4^2 = 0 \times 16 = 0$$

$$\diamondsuit 6 + (17 - 7) \div 2 = 6 + 10 \div 2 = 6 + 5 = 11$$

$$\diamondsuit 20 \div 10 + 3 \times 2 = 2 + 3 \times 2 = 2 + 6 = 8$$

$$\diamondsuit 3^2 + (60 - 15) \div 5 = 3^2 + 45 \div 5 = 9 + 45 \div 5 = 9 + 9 = 18$$

$$\diamondsuit 3^2 \times [9 - (4 + 2)] = 3^2 \times [9 - 6] = 3^2 \times 3 = 9 \times 3 = 27$$

$$\diamondsuit 5 + 2 [3 + 2(7 - 4)] = 5 + 2 [3 + 2(3)] = 5 + 2 [3 + 6] = 5 + 2(9) = 5 + 18 = 23$$



Q11

Complete the following table

algebraic expression	Coefficient	Constant	Like terms	Number of terms
$m + 3 + 2m + 2$	2, 1	3, 2	3, 2 $m, 2m$	4
6	----	6	---	1
$7x + 5x + 2 + 2x$	7, 5, 2	2	$7x, 5x, 2x$	4
$16y + 2z$	16, 2	-----	----	2
6D	6	---	-----	1
$p^2 + 2s - 7s + 22$	1, 2, 7	22	$2s, 7s$	4