

9ADV MATH EOT TERM 3 2025-2026



تم تحميل هذا الملف من موقع المناهج الإماراتية

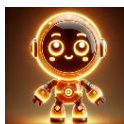
موقع المناهج ← المناهج الإماراتية ← الصف التاسع المتقدم ← رياضيات ← الفصل الثالث ← ملفات متنوعة ← الملف

تاريخ إضافة الملف على موقع المناهج: 10:43:23 2026-06-10

ملفات اكتب للمعلم اكتب للطالب ا اختبارات الكترونية ا اختبارات ا حلول ا عروض بوربوينت ا أوراق عمل
منهج انجليزي ا ملخصات وتقارير ا مذكرات وبنوك ا الامتحان النهائي ا للمدرس

المزيد من مادة
رياضيات:

التواصل الاجتماعي بحسب الصف التاسع المتقدم



صفحة المناهج
الإماراتية على
فيسبوك

الرياضيات

اللغة الانجليزية

اللغة العربية

التربية الاسلامية

المواد على تلغرام

المزيد من الملفات بحسب الصف التاسع المتقدم والمادة رياضيات في الفصل الثالث

الهيكل الوزاري لمادة الرياضيات

1

ملزمة وفق الهيكل

2

ملزمة هيكل واختياري وأسئلة

3

منهج ريفيل مراجعة هيكل تدريبات ومفاهيم متنوعة محلولة

4

ريفييل Disprove conjectures by using counterexamples

5

9ADV
MATH EOT TERM 3
2025-2026



$$\sqrt{x}$$

$$ax^2+bx+c=0$$



Module12 Logical Arguments and Line Relation ships

1	Lesson12-1 Conjectures and Counterexamples
18 , 19 , 25	Lesson12-2 Statements ,Conditionals ,and Biconditionals
24	Lesson12-5 Proving Segment Relation ships
3 , 4	Lesson 12-6 Proving Angle Relation ships
6 , 8	Lesson12-8 Slope and Equations of Lines
2 , 22	Lesson12-9 Proving Lines Parallel
7	Lesson12-10 Perpendiculars and Distance

Module13 Transformations and Symmetry

9	Lesson13-1 Reflections
10	Lesson13-2 Translations
11	Lesson13-3 Rotations
20	Lesson13-6 Symmetry

Module14 Triangles and Congruence

12	Lesson14-1 Angles of Triangles
13	Lesson14-2 Congruent Triangles
15 , 23	Lesson14-3 Proving Triangles Congruent : SSS , SAS
16 , 21	Lesson14-4 Proving Triangles Congruent: ASA, AAS
14	Lesson14-5 Proving Right Triangles Congruent
5 , 17	Lesson14-6 Isosceles and Equilateral Triangles

1	Lesson12-1 Conjectures and Counterexamples	(EX5,18-23)	706, 708
	Disprove conjectures by using counterexamples		

Example 5 Find Counterexamples

Find a counterexample to show that each conjecture is false.

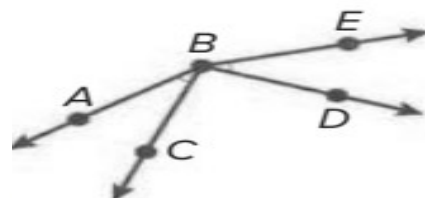
a. If n is a real number, then $-n$ is a negative number.

When n is -4 , $-n$ is $-(-4)$ or 4 , which is a positive number. Because $-n$ is not negative, this is a counterexample.

b. If $\angle ABC \cong \angle DBE$, then $\angle ABC$ and $\angle DBE$ are vertical angles.

When points A , B , and D are noncollinear and points E , B , and C are noncollinear, the conjecture is false.

In the figure, $\angle ABC \cong \angle DBE$, but $\angle ABC$ and $\angle DBE$ are not vertical angles.



Determine whether each conjecture is true or false. Find a counterexample for any false conjecture.

18. If n is a prime number, then $n + 1$ is not prime. (False)

→ $n=2$ prime number, $n+1 = 2+1 = 3$ prime

19. If x is an integer, then $-x$ is positive. (false)

$x=4$ integer, $-x = -4$ not positive

20. If $\angle 2$ and $\angle 3$ are supplementary angles, then $\angle 2$ and $\angle 3$ form a linear pair. (False)

$m\angle 2 = 70$, $m\angle 3 = 110$ supplementary in triangle

21. If you have three points A , B , and C , then A , B , and C are noncollinear. → false

A, B, C lie on the exact same straight line

22. If in $\triangle ABC$, $(AB)^2 + (BC)^2 = (AC)^2$, then $\triangle ABC$ is a right triangle. (True)

23. If the area of a rectangle is 20 square meters, then the length is 10 meters and the width is 2 meters. (false)

the length = 4
The width = 5

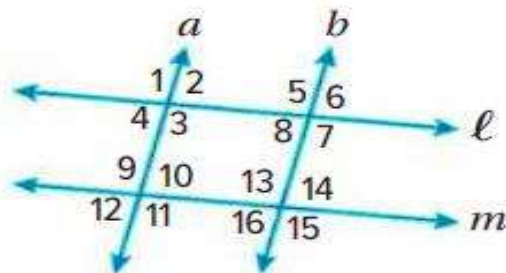
area = $4 \times 5 = 20$

طول عرض $\times$ طول
 $2 \times 10 = 20$

2	Lesson12-9 Proving Lines Parallel	(EX1-1-6)	776,779
	Apply angle relationship theorems to identify parallel lines and find missing values		

Example 1 Identify Parallel Lines

Use the given information to determine which lines, if any, are parallel. State the postulate or theorem that justifies your answer.



a. $\angle 2 \cong \angle 8$

$\angle 2$ and $\angle 8$ are alternate interior angles of lines a and b .

Because $\angle 2 \cong \angle 8$, $a \parallel b$ by the Alternate Interior Angles Converse.

b. $\angle 3 \cong \angle 11$

$\angle 3$ and $\angle 11$ are corresponding angles of lines ℓ and m . Because $\angle 3 \cong \angle 11$, $\ell \parallel m$ by the Converse of the Corresponding Angles Theorem.

c. $\angle 12 \cong \angle 14$

$\angle 12$ and $\angle 14$ are alternate exterior angles of lines a and b .

Because $\angle 12 \cong \angle 14$, $a \parallel b$ by the Alternate Exterior Angles Converse.

Use the given information to determine which lines, if any, are parallel. State the postulate or theorem that justifies your answer.

1. $\angle 3 \cong \angle 7$ واحدة داخل واحدة خارج
 $a \parallel b$

Alternate interior

3. $\angle 2 \cong \angle 16$

$L \parallel m$ الاثنين خارج
متر

Alternate Exterior

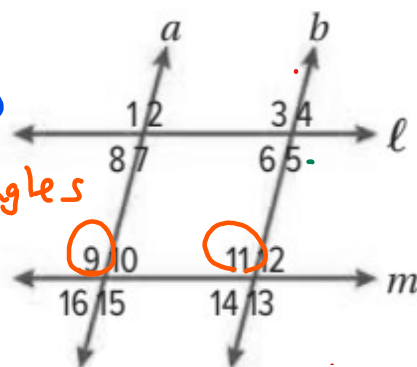
2. $\angle 9 \cong \angle 11$

نفس الزاوية متقابلين
 $a \parallel b$ Corresponding Angles

4. $m\angle 5 + m\angle 12 = 180^\circ$

$L \parallel m$

consecutive angles
[co-interior angles]



Given the following information, determine which lines, if any, are parallel. State the theorem that justifies your answer.

5. $\angle 1 \cong \angle 6$

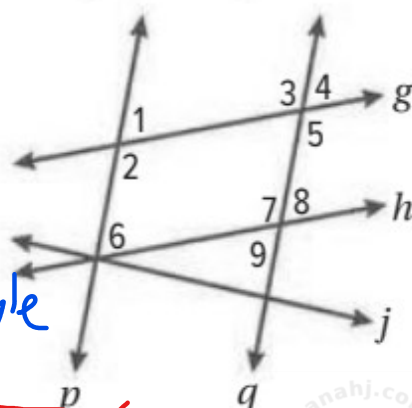
$g \parallel h$

Corresponding angle

6. $m\angle 7 + m\angle 6 = 180^\circ$

$P \parallel Q$

Consecutive angle



واحدة داخل واحدة خارج Alternate interior

اثنين خارج Alternate exterior

Consecutive angle $\leftarrow 180^\circ$

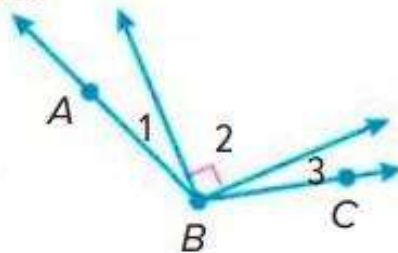
على نفس الزاوية Corresponding

3	Lesson 12-6 Proving Angle Relationships	(EX1,1-3)	747,753
	Prove theorems about angles by using the Angle Addition Postulate		

Example 1 Angle Addition Postulate

What is $m\angle 3$ if $m\angle 1 = 23^\circ$ and $m\angle ABC = 131^\circ$?

Choose from the reasons provided to justify each step.



$$\begin{aligned}
 m\angle 1 + m\angle 2 + m\angle 3 &= m\angle ABC && \text{Angle Addition Postulate} \\
 23^\circ + 90^\circ + m\angle 3 &= 131^\circ && \text{Substitution Property} \\
 113^\circ + m\angle 3 &= 131^\circ && \text{Substitution Property} \\
 113^\circ + m\angle 3 - 113^\circ &= 131^\circ - 113^\circ && \text{Subtraction Property} \\
 m\angle 3 &= 18^\circ && \text{Substitution Property}
 \end{aligned}$$

Find the measure of each angle.

1. Find $m\angle ABC$ if $m\angle ABD = 70^\circ$ and $m\angle DBC = 43^\circ$.

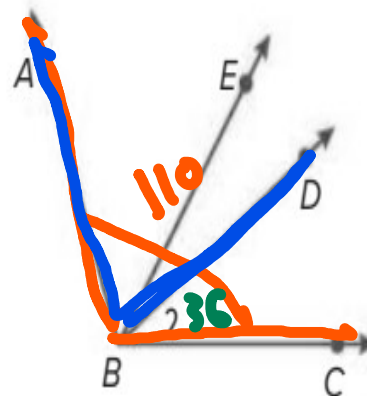
$$m\angle ABC = 70 + 43 = 113$$

2. If $m\angle EBC = 55^\circ$ and $m\angle EBD = 20^\circ$, find $m\angle 2$.

$$m\angle 2 = 55 - 20 = 35$$

3. Find $m\angle ABD$ if $m\angle ABC = 110^\circ$ and $m\angle 2 = 36^\circ$.

$$110 - 36 = 74$$



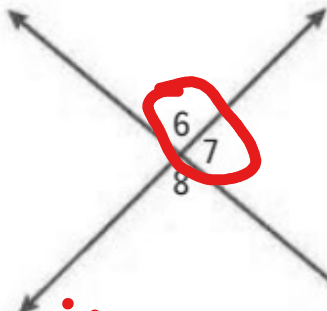
* أُلون
* اوصلي بنهم

أُلون
- اوصلي بنهم

4	Lesson 12-6 Proving Angle Relationships	(13-18)	754
	Prove theorems about angles by using properties and theorems of angle congruence		

Find the measure of each numbered angle and name the theorems that you used to justify your work.

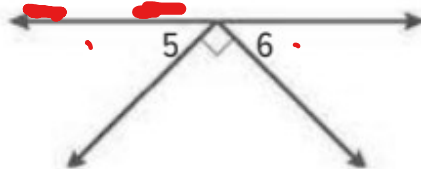
13. $m\angle 6 = (2x - 21)^\circ$
 $m\angle 7 = (3x - 34)^\circ$



مجاورين على خط
 $180 =$
 $5x - 55 = 180$
 $5x = 180 + 55$

$5x = 235 \rightarrow x =$
 $x = \frac{235}{5} = 47$

14. $m\angle 5 = m\angle 6$



مجاورين على خط

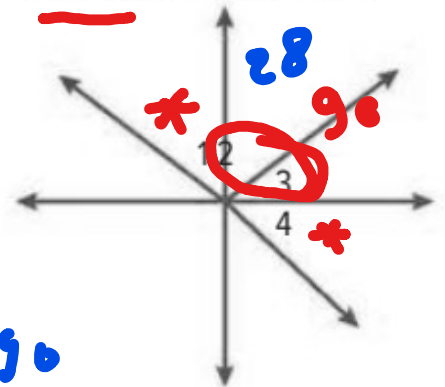
$180 =$

$m\angle 5 + m\angle 6 = 180 - 90$

$m\angle 5 + m\angle 6 = 90$

$m\angle 5 = m\angle 6 = \frac{90}{2}$
 $= 45$

15. $\angle 2$ and $\angle 3$ are complementary.
 $\angle 1 \cong \angle 4$ and $m\angle 2 = 28^\circ$.

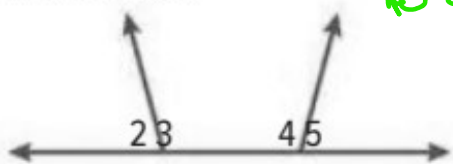


$m\angle 3 = 90 - 28$

$m\angle 3 = 62$

$m\angle 1 = m\angle 4$
 $= 180 - 90$
 $= \frac{90}{2} = 45$

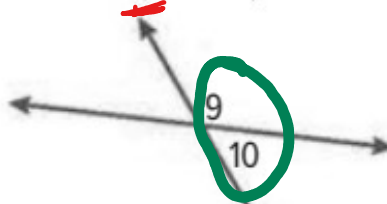
16. $\angle 2$ and $\angle 4$ and $\angle 4$ and $\angle 5$ are supplementary.
 $m\angle 4 = 105^\circ$



$m\angle 2 = 180 - 105 = 75$

$m\angle 5 = 180 - 105 = 75$

17. $m\angle 9 = (3x + 12)^\circ$
 $m\angle 10 = (x - 24)^\circ$



$180 =$

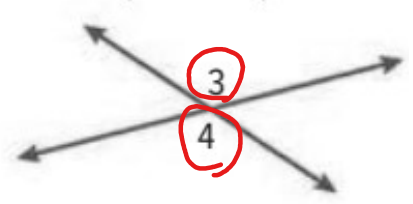
$4x - 12 = 180$

$4x = 180 + 12$

$x = 48$

$x = \frac{192}{4} = 48$

18. $m\angle 3 = (2x + 23)^\circ$
 $m\angle 4 = (5x - 112)^\circ$



مجاورين على خط

$5x - 112 = 2x + 23$
 $-2x$ $+112$

$3x = 135$