



وزارة التربية والتعليم و التعليم الفني
الإدارة المركزية للتعليم العام
إدارة تنمية مادة الرياضيات

برعاية معالي وزير التربية والتعليم و التعليم العام السيد الأستاذ/ محمد عبد اللطيف

وتوجيهات رئيس الإدارة المركزية للتعليم العام

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إشراف علمي
مستشار الرياضيات
أ/ منال عزقول

أداءات وتقييمات لمنهج الرياضيات

للفصل الأول الثانوي **لغات**
الفصل الدراسي الأول
للعام الدراسي 2025 / 2026

الأسبوع الثانى عشر

لجنة الإعداد

أ/ عفاف جاد

أ/ إيهاب فتحى

أ/ عصام الجزار

ترجمة

أ/ محاسب على

مراجعة

أ/ شريف البرهامى



12 الرياضيات لغات الصف الأول الثانوي الأداء الصفى الأسبوع الثانى عشر 12

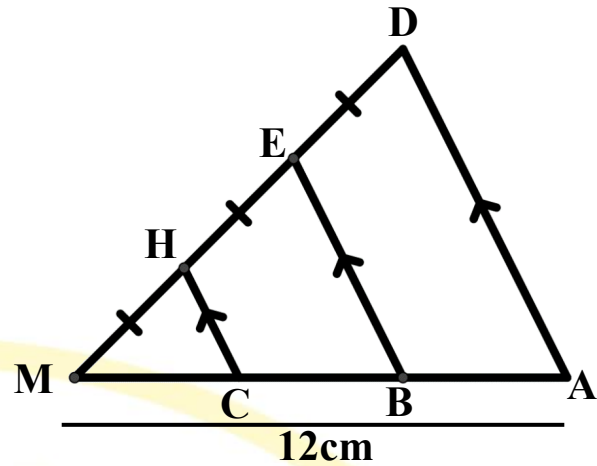
- (1) Investigat the sign of the function $f: f(x) = \frac{6}{7}$
- (2) Investigat the sign of the function $f: f(x) = 5 - x$,
representing this on the number line.
- (3) Investigat the sign of the function $f: f(x) = (x - 3)(x - 1)$,
representing this on the number line.
- (4) Investigat the sign of the function : $f(x) = 12 - 5x - 2x^2$,
representing this on the number line.
- (5) Find in $\mathbb{R}$ the solution set of the inequality: $x^2 - 7x + 12 > 0$
- (6) Find in $\mathbb{R}$ the solution set of the inequality: $x^2 < 9$
- (7) Find in $\mathbb{R}$ the solution set of the inequality: $(x - 2)(x - 5) \leq 0$
- (8) If $5\sin\theta - 4 = 0$, where $\theta \in]0, \frac{\pi}{2}[$, find $m(\angle\theta)$
- (9) If $2\sin\theta = -1$, where $180^\circ < \theta < 270^\circ$
 - (a) Calculate the measure of angle θ .
 - (b) Find the value of each of: $\cos \theta$, $\tan \theta$, $\sec \theta$.

(10) In the opposite figure:

$$\overline{AD} \parallel \overline{BE} \parallel \overline{CH}$$

$$DE = EH = HM, AM = 12 \text{ cm},$$

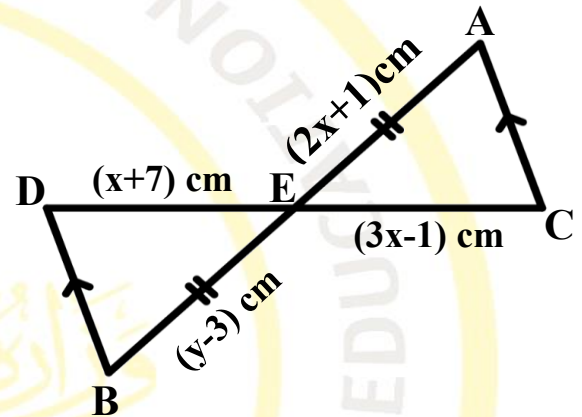
Find the length of $\overline{AC}$.



(11) In the opposite figure:

$$\overline{AB} \cap \overline{CD} = \{E\}, AE = EB$$

$\overline{CA} \parallel \overline{BD}$, find the value of x, y

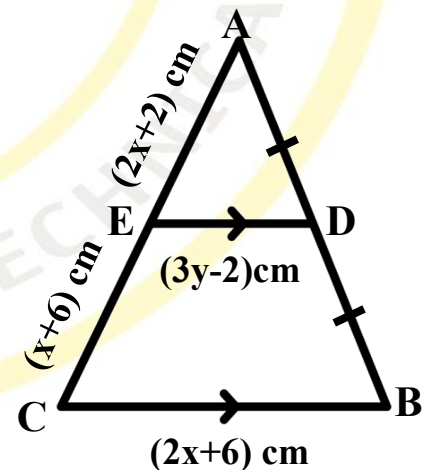


(12) In the opposite figure:

ABC is a triangle, D is the

midpoint of $\overline{AB}$

$\overline{ED} \parallel \overline{CB}$, find the value of x, y



- (13) $\overline{XY} \cap \overline{ZL} = \{M\}$, where $\overline{XZ} \parallel \overline{LY}$, if $XM = 9$ cm,
 $YM = 15$ cm, $ZL = 36$ cm, find the length of $\overline{ZM}$.

- (14) In the opposite figure:

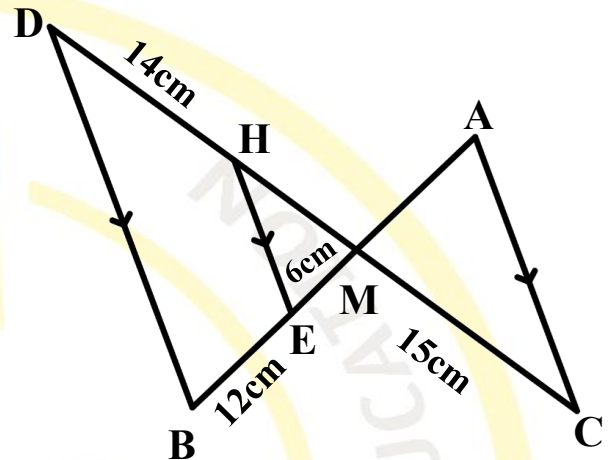
$$\overline{AB} \cap \overline{CD} = \{M\}, E \in \overline{MB}$$

$$H \in \overline{MD}, \overline{AC} \parallel \overline{HE} \parallel \overline{DB},$$

$$CM = 15 \text{ cm}, ME = 6 \text{ cm},$$

$$EB = 12 \text{ cm}, HD = 14 \text{ cm}.$$

Find the length of $\overline{MH}$, $\overline{AM}$.

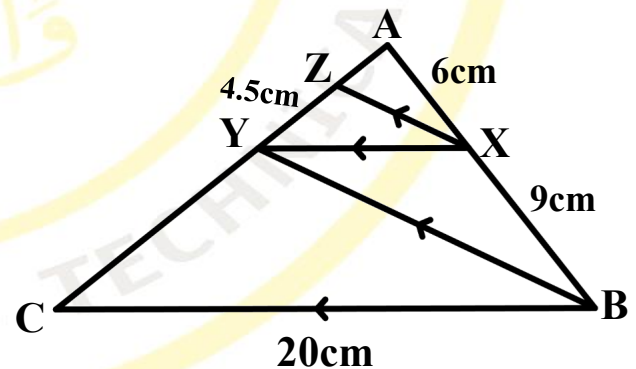


- (15) In the opposite figure:

$$\overline{XY} \parallel \overline{BC}, \overline{XZ} \parallel \overline{BY}, AX = 6 \text{ cm},$$

$$XB = 9 \text{ cm}, YZ = 4.5 \text{ cm}, BC = 20 \text{ cm}$$

Find the length of $\overline{ZA}$, $\overline{YC}$, $\overline{XY}$.





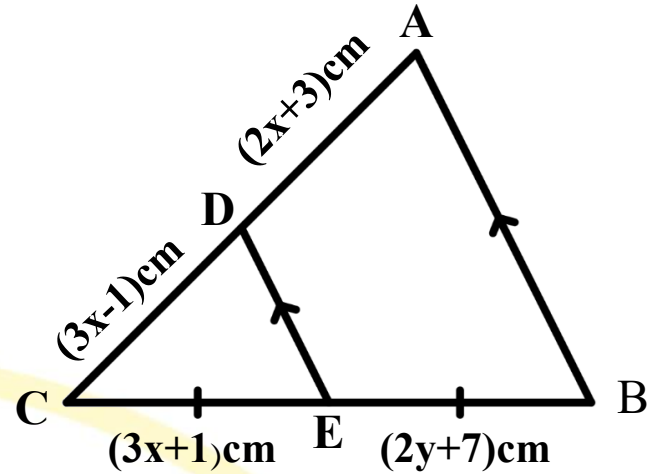
12 الرياضيات لغات للصف الأول الثانوي الأداء المنزلي الأسبوع الثاني عشر 12

- (1) Investigat the sign of the function $f: f(x) = \frac{7}{19}$
- (2) Investigat the sign of the function $f: f(x) = x^2 + 2x - 15$,
representing this on the number line.
- (3) Investigat the sign of the function $f: f(x) = -(x - 1)(x + 2)$,
representing this on the number line.
- (4) Graph the curve of the function $f: f(x) = x^2 - 9$ in the interval
[-4, 4], from the graph determain the sign of the function f in $\mathbb{R}$.
- (5) Find in $\mathbb{R}$ the solution set of the inequality: $x^2 + 7x + 12 > 0$
- (6) Find in $\mathbb{R}$ the solution set of the inequality: $x^2 < 16$
- (7) Find in $\mathbb{R}$ the solution set of the inequality: $(x + 2)(x + 5) \leq 0$
- (8) If $4\sin\theta - 3 = 0$, where $\theta \in]0, \frac{\pi}{2}[$, find $m(\angle\theta)$
- (9) If $2\sin\theta = 1$, where $90^\circ < \theta < 180^\circ$
 - a. Calculate the measure of angle θ .
 - b. Find the value of $\cos \theta$, $\tan \theta$, $\sec \theta$.

(10) In the opposite figure:

ABC is a triangle E is the mid point
of $\overline{BC}$, $D \in \overline{AC}$ where $\overline{ED} \parallel \overline{BA}$

Find the value of x, y

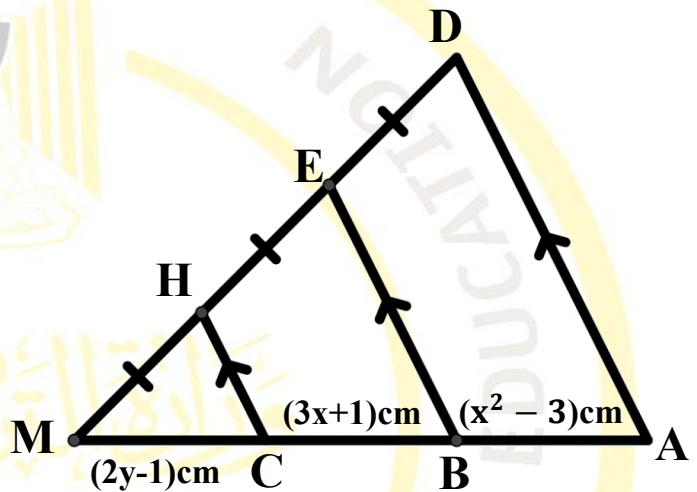


(11) In the opposite figure

$\overline{AD} \parallel \overline{BE} \parallel \overline{CH}$

$DE = EH = HM$

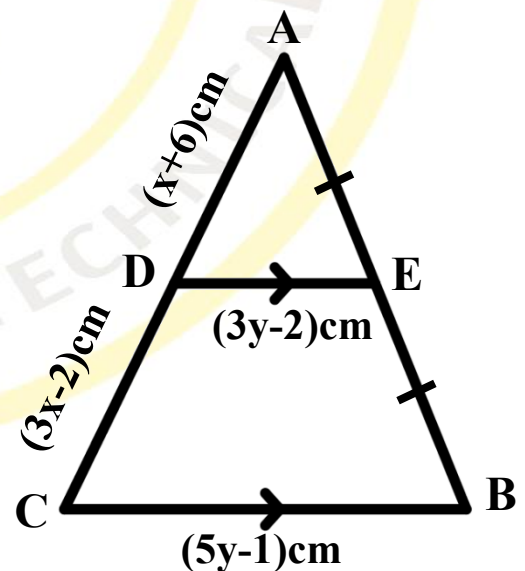
Find x, y



(12) In the opposite figure:

ABC is a triangle, E is the mid point
of $\overline{AB}$, $\overline{DE} \parallel \overline{CB}$

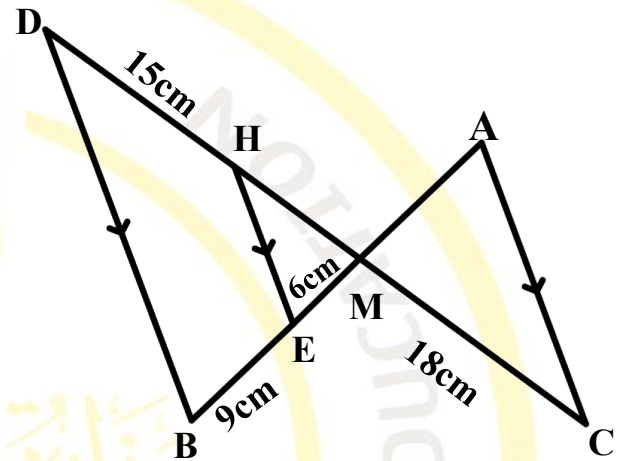
find the value of x, y



- (13) ABCD is a quadrilateral in which $x \in \overline{AB}$, $y \in \overline{AC}$,
where $\overline{XY} \parallel \overline{BC}$, draw $\overline{YZ} \parallel \overline{CD}$ to intersect $\overline{AD}$ at Z
Prove that $\overline{XY} \parallel \overline{BD}$.

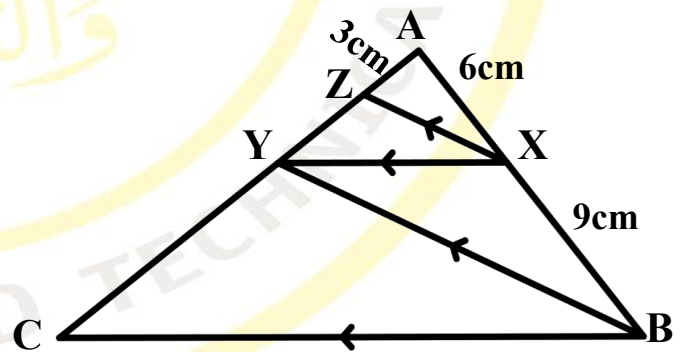
- (14) In the opposite figure:

$\overline{AB} \cap \overline{CD} = \{M\}$, $E \in \overline{MB}$
 $H \in \overline{MD}$, $\overline{AC} \parallel \overline{HE} \parallel \overline{DB}$,
 $CM = 18 \text{ cm}$, $ME = 6 \text{ cm}$,
 $EB = 9 \text{ cm}$, $HD = 15 \text{ cm}$.
Find the length of $\overline{MH}$, $\overline{AM}$.



- (15) in the opposite figure:

$\overline{XY} \parallel \overline{BC}$, $\overline{XZ} \parallel \overline{BY}$
 $AX = 6 \text{ cm}$, $XB = 9 \text{ cm}$, $AZ = 3 \text{ cm}$
Find the length of $\overline{ZY}$, $\overline{YC}$.



First group:

1) Investigate the sign of the function $f: f(x) = 7x - x^2 - 10$, representing this on the number line.

2) Find in $\mathbb{R}$ the solution set of the inequality: $x^2 + 9x + 18 > 0$

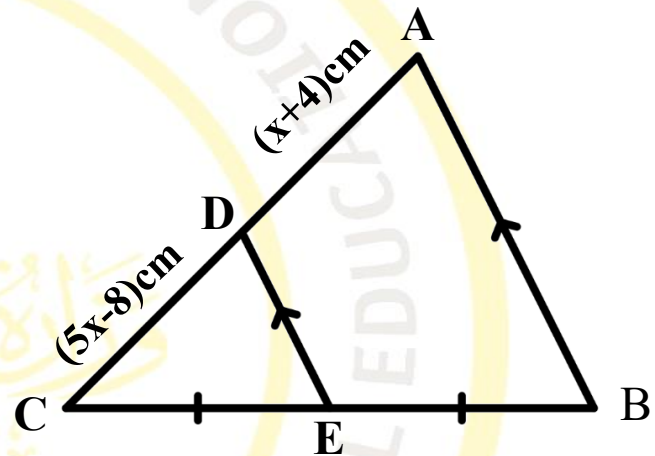
3) If $2\cos\theta = -1$, where $180^\circ < \theta < 270^\circ$

find the measure of angle θ .

4) In the opposite figure:

ABC is a triangle E is the mid point of $\overline{BC}$, $D \in \overline{AC}$ where $\overline{DE} \parallel \overline{AB}$

Find the value of x.



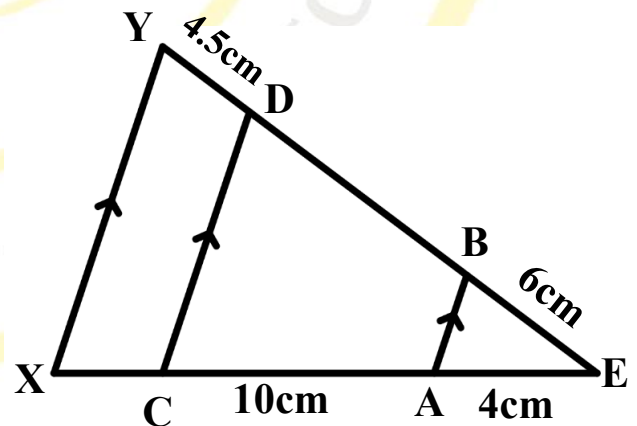
5) In the opposite figure

$\overline{AB} \parallel \overline{CD} \parallel \overline{XY}$, $AE = 4$ cm,

$AC = 10$ cm, $BE = 6$ cm,

$DY = 4.5$ cm, find the length

of $\overline{BD}$, $\overline{CX}$



Second group:

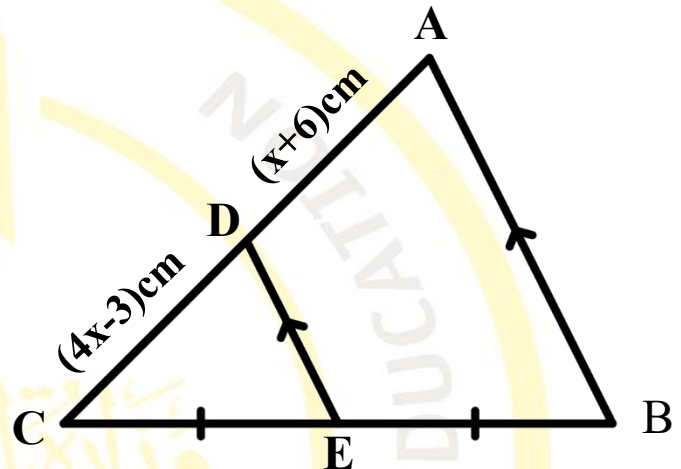
- 1) Investigate the sign of the function : $f(x) = 8x - x^2 - 15$,
representing this on the number line.
- 2) Find in $\mathbb{R}$ the solution set of the inequality: $x^2 + 8x + 16 > 0$
- 3) If $2\cos\theta = -1$, where $90^\circ < \theta < 180^\circ$

find the measure of angle θ .

- 4) In the opposite figure:

ABC is a triangle E is the mid point
of $\overline{BC}$, $D \in \overline{AC}$ where $\overline{DE} \parallel \overline{AB}$

Find the value of x.



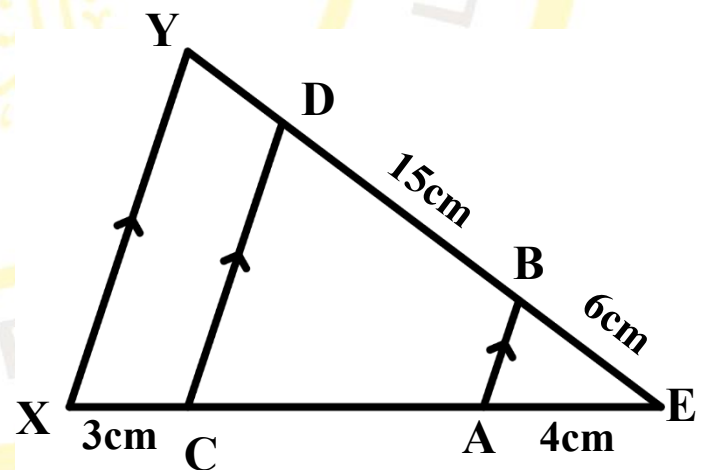
- 5) In the opposite figure

$\overline{AB} \parallel \overline{CD} \parallel \overline{XY}$, $AE = 4$ cm,

$XC = 3$ cm, $BD = 15$ cm,

$BE = 6$ cm, find the length

of $\overline{YD}$, $\overline{CA}$



Third group:

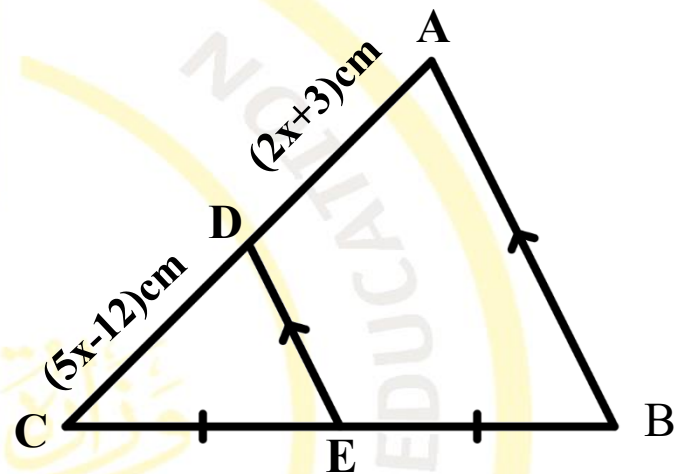
1) Investigate the sign of the function : $f(x) = 7x - x^2 - 12$,
representing this on the number line.

2) Find in $\mathbb{R}$ the solution set of the inequality: $x^2 + 7x - 18 > 0$

3) If $2\cos\theta = 1$, where $0^\circ < \theta < 90^\circ$
find the measure of angle θ .

4) In the opposite figure:

ABC is a triangle E is the mid point
of $\overline{BC}$, $D \in \overline{AC}$ where $\overline{ED} \parallel \overline{BA}$
Find the value of x.



5) In the opposite figure

$\overline{AB} \parallel \overline{CD} \parallel \overline{XY}$, $AC = 10$ cm,
 $XC = 3$ cm, $BD = 15$ cm,
 $BE = 6$ cm, find the length
of $\overline{AE}$, $\overline{DY}$

