



وزارة التربية والتعليم  
الادارة المركزية لتطوير المناهج  
مكتب مستشار الرياضيات

# برعاية معالي وزير التربية والتعليم

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ونجيهات رئيس الادارة المركزية لتطوير المناهج

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### أدلة ونقييمات لمنهج الرياضيات

للصف الأول الثانوي  
لعام الدراسي 2024 / 2025

إعداد

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### First Group:

(1) Determine the sign of the following function:

(a)  $f(x) = 9$

(b)  $f(x) = -6$

(2) Determine the sign of the following function:

(a)  $f(x) = 2x + 12$

(b)  $f(x) = 6 - 2x$

(3) Graph the curve of the function  $f: f(x) = 5\sin\theta$ , where  $\theta \in [0, 2\pi]$ , From the graph, find the maximum and the minimum values of the function- the range of the function, its period.

(4)  $\overline{AB}$ ,  $\overline{CD}$  are two chords in a circle  $\overline{AB} \cap \overline{CD} = \{E\}$ , where  $AE = EB = 15 \text{ cm}$ ,  $ED = 9 \text{ cm}$ , find the length of  $\overline{AB}$ .

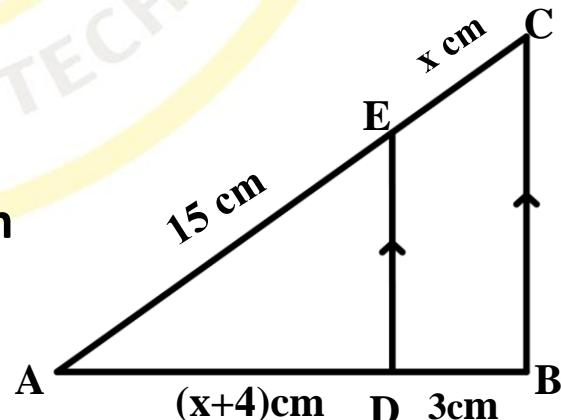
(5) In the opposite figure:

ABC is a triangle,  $E \in \overline{AC}$ ,  $D \in \overline{AB}$

Where  $\overline{DE} \parallel \overline{BC}$ ,  $EC = x \text{ cm}$

$AD = (x+4) \text{ cm}$ ,  $DB = 3 \text{ cm}$ ,  $EA = 15 \text{ cm}$

Find the value of x.





## Second Group:

(1) Determine the sign of the following function:

(a)  $f(x) = 7$       (b)  $f(x) = -1$

(2) Determine the sign of the following function:

(a)  $f(x) = 4x + 8$       (b)  $f(x) = 6 - 3x$

(3) Graph the curve of the function  $f$ :

$f(x) = 9\sin\theta$ , where  $\theta \in [0, 2\pi]$ , From the graph,  
find the maximum and the minimum values of the  
function- the range of the function, its period.

(4)  $\overline{AB}$ ,  $\overline{CD}$  are two chords in a circle  $\overline{AB} \cap \overline{CD} = \{E\}$ ,  
where  $AE = EB = 9$  cm,  $ED = 16$  cm,  
find the length of  $\overline{AB}$ .

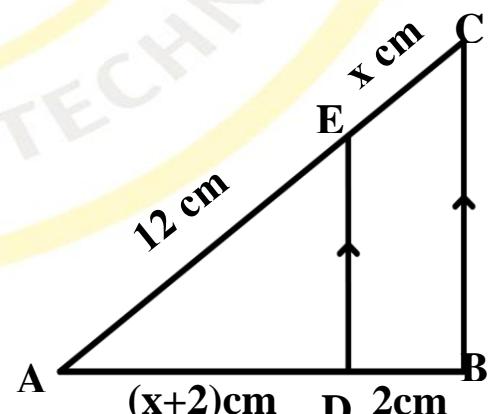
(5) in the opposite figure:

$ABC$  is a triangle,  $E \in \overline{AC}$ ,  $D \in \overline{AB}$

Where  $\overline{DE} \parallel \overline{BC}$ ,  $EC = x$  cm

$AD = (x+4)$  cm,  $DB = 3$  cm,  $EA = 15$  cm

Find the value of  $x$ .





### Third Group:

(1) Determine the sign of the following function:

(a)  $f(x) = 3$       (b)  $f(x) = -9$

(2) Determine the sign of the following function:

(a)  $f(x) = 3x + 15$       (b)  $f(x) = 8 - 2x$

(3) Graph the curve of the function  $f$ :

$f(x) = 7\sin\theta$ , where  $\theta \in [0, 2\pi]$ , From the graph,  
find the maximum and the minimum values of the  
function- the range of the function, its period.

(4)  $\overline{AB}$ ,  $\overline{CD}$  are two chords in a circle  $\overline{AB} \cap \overline{CD} = \{E\}$ ,  
where  $AE = EB = 15\text{ cm}$ ,  $EC = 4\text{ cm}$ ,  $ED = 25\text{ cm}$ ,  
find the length of  $\overline{AB}$ .

(5) In the opposite figure:

$ABC$  is a triangle,  $E \in \overline{AC}$ ,  $D \in \overline{AB}$

Where  $\overline{DE} \parallel \overline{BC}$ ,  $EC = x\text{ cm}$

$AD = (x+1)\text{ cm}$ ,  $DB = 2\text{ cm}$ ,  $EA = 15\text{ cm}$

Find the value of  $x$ .

