وزارة التربية والتعليم
الإدارة المركزية لتطوير المناهج
مكتب مستشار الرياضيات

برعاية معالي وزير التربية والتعليم

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وتوجيهات رئيس الإدارة المركزية لتطوير المناهج

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مستشار الرياضيات

أ/ منال عزقول

أداءات وتقييمات لمنهج الرياضيات

للصف الأول الثانوي

للعام الدراسي 2024 / 2025

إعـــداد

أ/ إيهاب فتحي

مراجـــعة

أ/ عفاف جاد

أ/ عصام الجـــزار

ترجـــمة

أ/ محسب علي

مراجـــعة الترجـــمة

أ/ شريف البرهامي

الصف الأول الثانوي – الرياضيات – الأداء المنزلي – الأسبوع العاشر

(1) Determaine the sign of the following function:

(a) $f(x) = 3.5$ (b) $f(x) = -6$

(2) Determaine the sign of the following function:

(a) $f(x) = 3x + 6$ (b) $f(x) = 5 - 2x$

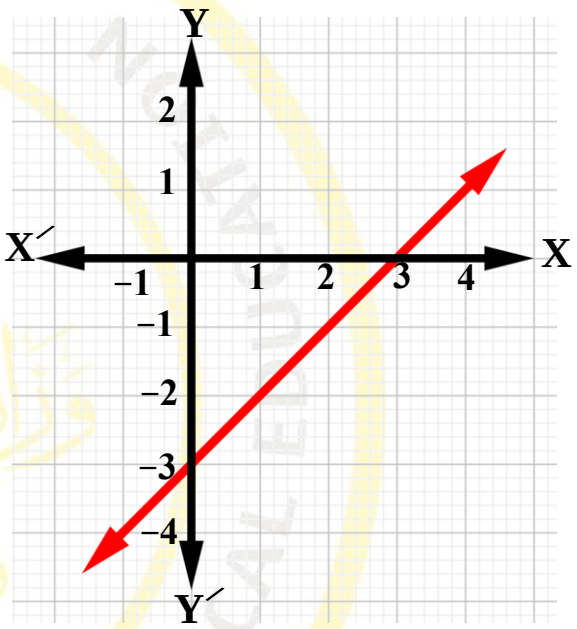
(3) the opposite figure represents a function of first degree in x

Complete the following:

(a) $f(x) = 0, at\ x \in \{\dots\}$

(b) $f(x) is\ positive\ in\ the$ Interval .....

(c) $f(x) is\ negative\ in\ the$ Interval .....



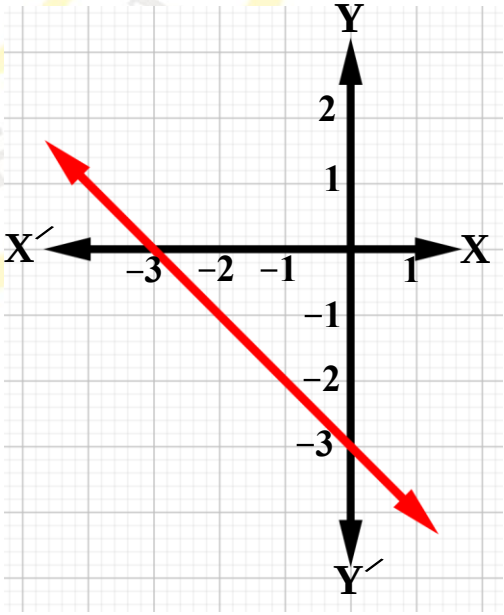
(4) The opposite figure represents a function of first degree in x

Complete the following:

(a) $f(x) = 0, at\ x \in \{\dots\}$

(b) $f(x) > zero\ when$ ...

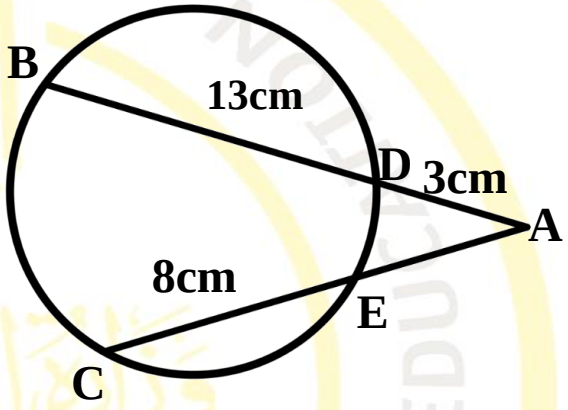
(c) $f(x) < zero\ when$ ...



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

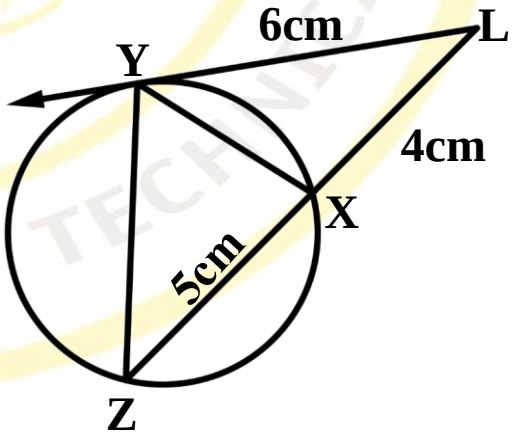
(6) In the opposite figure:

$\overrightarrow{BD} \cap \overrightarrow{CE} = \{A\}$, AD = 3 cm,
DB = 13 cm, CE = 8 cm
Find the length of $\overline{AE}$



(7) In the opposite figure:

L is a point outside the circle,
$\overrightarrow{LZ}$ is a secant to the circle
At X, Z respectvlay
If LY = 6cm, LX = 4cm, XZ = 5cm
First: prove that
$\overrightarrow{LY}$ is a tangent to the circle
Second: $\triangle LYX \sim \triangle LZY$



(8) Two similar polygons the ratio between their perimeters is 3: 2, if the area of the smaller polygon is 40 cm^2, find the area of the greater polygon.

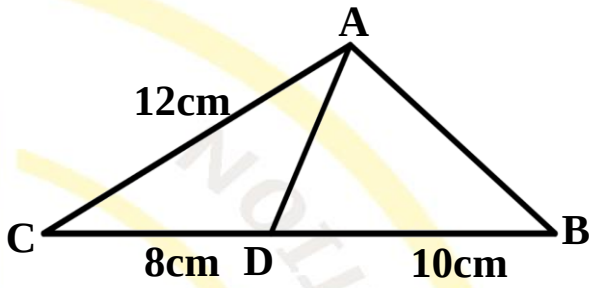
(9) In the opposite figure:

$D \in \overline{BC}$, where AC= 12cm,

BD = 10cm, CD = 8cm.

First: prove that $\triangle ABC \sim \triangle DAC$

Second: the ratio between the areas of $\triangle ABC$, $\triangle DAC$



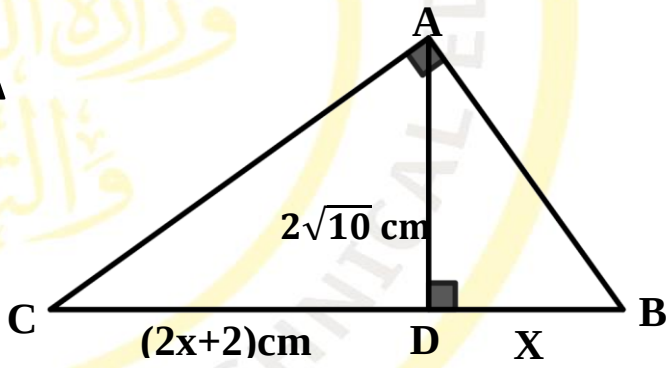
(10) In the opposite figure:

BAC is a right angled triangle at A

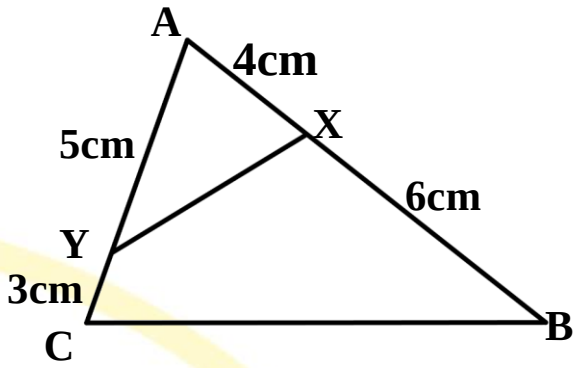
$\overline{AD} \perp \overline{BC}$, AD = $2\sqrt{10}$ cm,

$BD = x$ cm, $cd = (2x + 2)$cm

Find the value of X



(11) In the opposite figure:



$X \in \overline{AB}$, where AX = 4cm

$XB = 6cm, Y \in \overline{AC},$

$AY = 5cm, YC = 3cm$

Prove that:

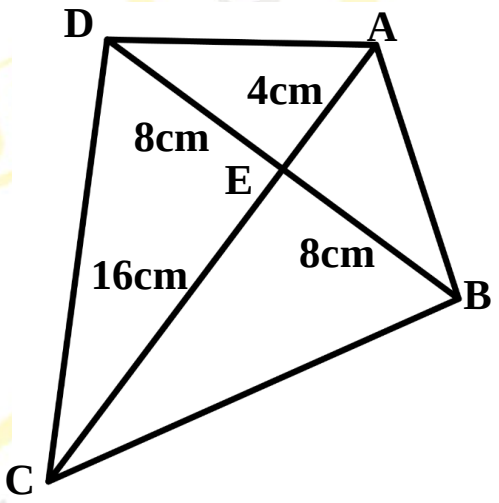
First: a) $\triangle AXY \sim \triangle ACB$

b) the figure XBCY is a cyclic quadrilateral.

Second: if area of triangle AXY = 8 cm^2,

find area of the figure XBCY.

(12) In the opposite figure:



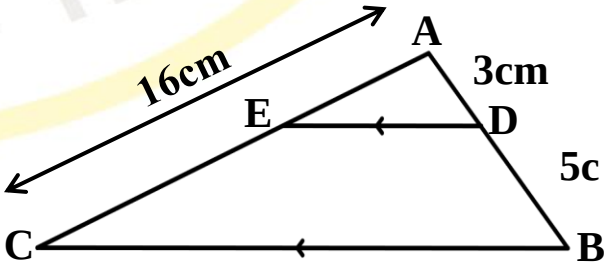
ABCD is a quadrilateral

its diagonals intersect at E, where

EA = 4cm, EC = 16cm, EB = ED = 8cm.

Prove that ABCD is a cyclic quad.

(13) In the opposite figure:



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

Where $\overline{DE} \,//\, \overline{BC}$, AD = 3cm

DB = 5 cm, AC = 16cm,

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

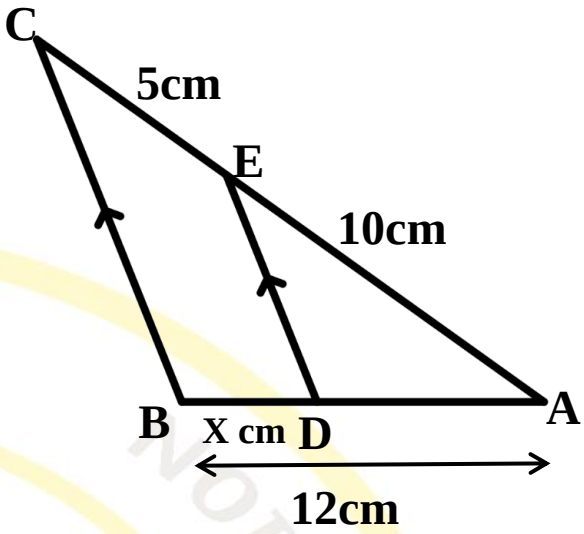
(14) In the opposite figure:

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

Where $\overline{DE} // \overline{BC}$, AB = 12cm

AE = 10cm, EC = 5cm, BD = x cm

Find the value of x



(15) In the opposite figure:

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

Where $\overline{DE} // \overline{AC}$, CB = x cm

AD = 8 cm, DB = 12 cm, EB = 15 cm

Find the value of x