



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

للسف الأول الثانوى **لغات**
الفصل الدراسى الأول
للعام الدراسى ٢٠٢٥ / ٢٠٢٦

الأسبوع الثامن

لجنة الإعداد
أ/ عصام الجزار **أ/ إيهاب فتحى** **أ/ عفاف جاد**
ترجمة
أ/ محسب على

مراجعة
أ/ شريف البرهامى



8 الرياضيات لغات للصف الأول الثانوي الأداء الصفی الأسبوع الثامن 8

- (1) If L, m are the two roots of the equation $x^2 - 5x + 6 = 0$,
find the quadratic equation of roots $L + 1, m + 1$.
- (2) If $\frac{2}{L}, \frac{2}{m}$ are the two roots of the equation $4x^2 + 3x - 2 = 0$,
find the quadratic equation of roots L, m .
- (3) If L, m are the two roots of the equation $x^2 - 7x + 3 = 0$,
find the quadratic equation of roots $L + m, Lm$.
- (4) If L, m are the two roots of the equation $x^2 + 7x - 6 = 0$,
find the quadratic equation of roots $L - 2, m - 2$.
- (5) Form the quadratic equation whose roots increase than the roots of
the equation $x^2 - 6x - 4 = 0$ by 2.
- (6) Find the general solution of the equation: $\sin 6\theta = \cos 2\theta$.
- (7) Find the general solution of the equation: $\cos 3\theta = \sin \theta$.
- (8) If $\tan 2\theta = \cot 3\theta$, find the values of θ wher $\theta \in]0, \frac{\pi}{2}[$
- (9) Find one of the values of θ wher $0^\circ < \theta < 90^\circ$ which satisfies the
equation $\sin(3\theta + 15^\circ) = \cos(2\theta - 5^\circ)$
- (10) If $\cos \theta = \sin 2\theta$, where θ is an acute positive angle
Find: $\sin 3\theta$

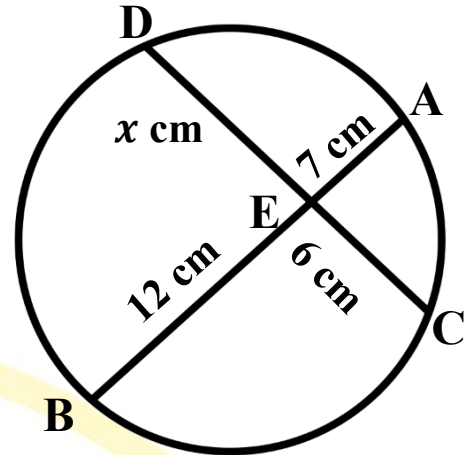
(11) In the opposite figure:

$\overline{AB}, \overline{CD}$ are two chords of a circle

$\overline{AB} \cap \overline{CD} = \{E\}$, $EA = 7\text{cm}$,

$EB = 12\text{cm}$, $EC = 6\text{cm}$,

$ED = x\text{ cm}$, find the value of x



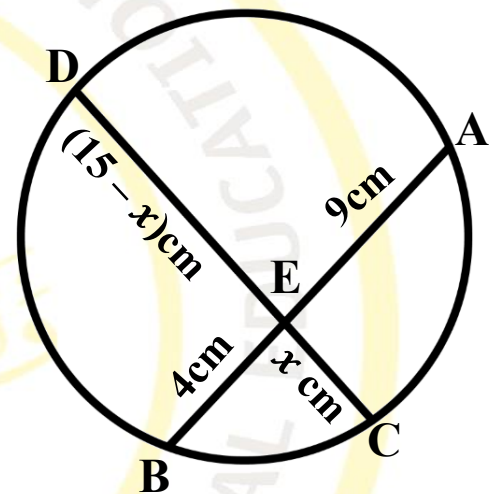
(12) In the opposite figure:

$\overline{AB}, \overline{CD}$ are two chords of a circle

$\overline{AB} \cap \overline{CD} = \{E\}$, $EA = 9\text{cm}$,

$EC = x\text{ cm}$, $ED = (15 - x)\text{cm}$.

$EB = 4\text{cm}$, find the value of x .



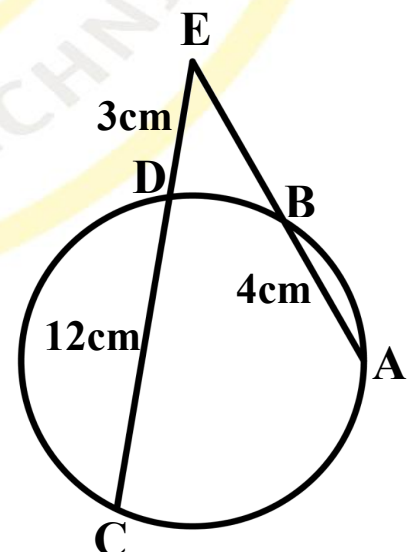
(13) In the opposite figure:

$\overline{AB}, \overline{CD}$ are two chords of a circle

$\overline{AB} \cap \overline{CD} = \{E\}$, $AB = 4\text{cm}$

$ED = 3\text{cm}$, $CD = 12\text{cm}$

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



(14) In the opposite figure:

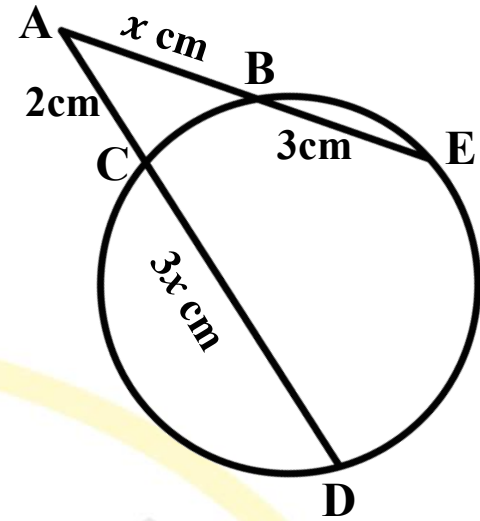
$\overline{EB}$, $\overline{CD}$ are two chords of a circle

$\overrightarrow{EB} \cap \overrightarrow{DC} = \{A\}$, $EB = 3\text{cm}$,

$AB = x\text{ cm}$, $AC = 2\text{cm}$.

$CD = (3x)\text{cm}$

find the value of x



(15) In the opposite figure:

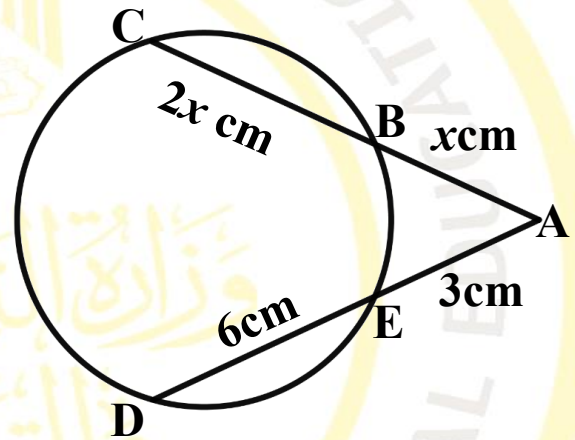
$\overline{EB}$, $\overline{CD}$ are two chords

of a circle $\overrightarrow{EB} \cap \overrightarrow{DC} = \{A\}$,

$AE = 3\text{cm}$, $AB = x\text{cm}$

$BC = 2x\text{cm}$, $DE = 6\text{cm}$

find the value of x





8 الرياضيات لغات للصف الأول الثانوي الأداء المنزلي الأسبوع الثامن 8

- (1) If L, m are the two roots of the equation $x^2 - 7x + 3 = 0$
find the value of:
a) $L^2 + m^2$ b) $\frac{2}{L} + \frac{2}{m}$ c) $\frac{L}{m} + \frac{m}{L}$ d) $L^2m + Lm^2$
- (2) If L, m are the two roots of the equation $x^2 + 3x - 5 = 0$
form the quadratic equation of roots L^2, m^2
- (3) Find the quadratic equation whose roots are double the roots of the equation: $2x^2 - 8x + 5 = 0$
- (4) Form the quadratic equation whose roots increase than the roots of the equation $x^2 - 7x - 9 = 0$ by 1.
- (5) If L, m are the two roots of the equation $x^2 - 7x + 3 = 0$,
find the quadratic equation of roots $3L, 3m$.
- (6) If L, m are the two roots of the equation $x^2 - 7x + 3 = 0$,
find the quadratic equation of roots $L + 2, m + 2$.
- (7) If L, m are the two roots of the equation $x^2 - 7x + 3 = 0$,
find the quadratic equation of roots $\frac{2}{L}, \frac{2}{m}$.
- (8) Find the general solution of the equation: $\sin 4\theta = \cos 2\theta$.
- (9) Find the general solution of the equation: $\cos 5\theta = \sin \theta$.

(10) Find all the values of θ wher $\theta \in]0, \frac{\pi}{2}[$ which satisfies the following

equations: a) $\sin\theta - \cos\theta = 0$

b) $2\cos\left(\frac{\pi}{2} - \theta\right) = 1.$

c) $\csc\left(\theta - \frac{\pi}{6}\right) = \sec\theta.$

(11) Find one of the values of θ wher $0^\circ < \theta < 90^\circ$ which satisfies the equation: $\tan(\theta + 20^\circ) = \cot(3\theta + 30^\circ).$

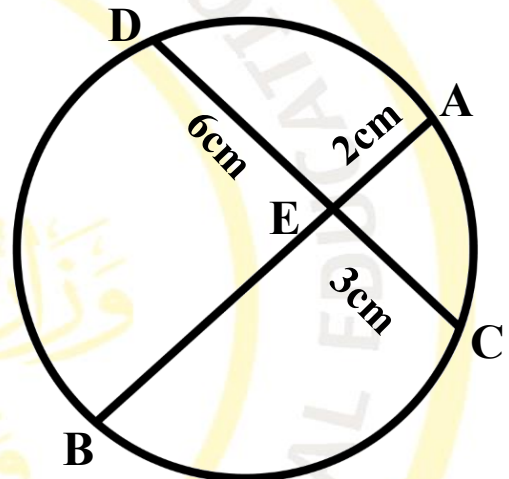
(12) In the opposite figure:

$\overline{AB}, \overline{CD}$ are two chords of a circle

$\overline{AB} \cap \overline{CD} = \{E\}, EA = 2\text{cm},$

$EC = 3\text{cm}, ED = 6\text{cm}.$

find the length of $\overline{EB}.$



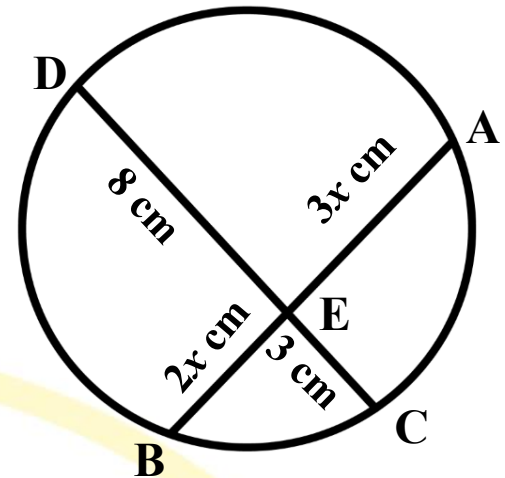
(13) In the opposite figure:

$\overline{AB}$, $\overline{CD}$ are two chords of a circle

$\overline{AB} \cap \overline{CD} = \{E\}$, $EA = (3x)\text{cm}$,

$EB = (2x)\text{cm}$, $EC = 3\text{cm}$,

$ED = 8\text{cm}$. Find x



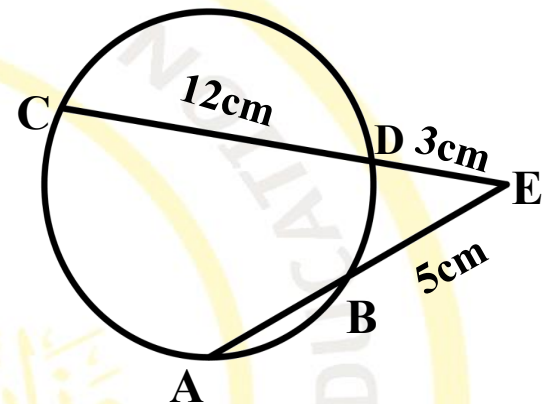
(14) In the opposite figure:

$\overline{AB}$, $\overline{CD}$ are two chords of a circle

$\overline{AB} \cap \overline{CD} = \{E\}$, $EB = 5\text{cm}$,

$DC = 12\text{cm}$, $ED = 3\text{cm}$.

find the length of $\overline{AB}$.



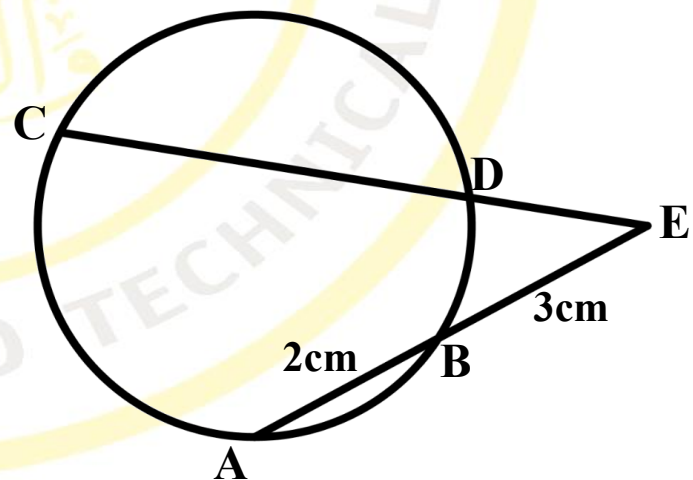
(15) In the opposite figure:

A circle in which

$\overline{AB} \cap \overline{CD} = \{E\}$, $EB = 3\text{cm}$,

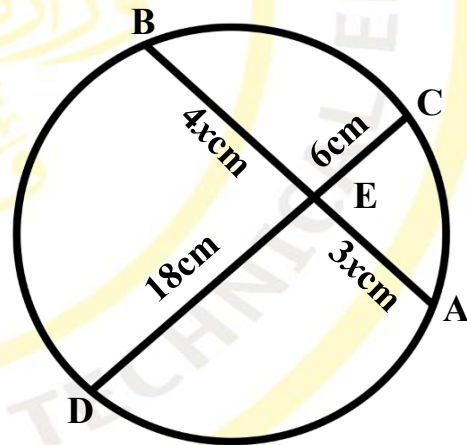
$EC = 7.5\text{cm}$, $AB = 2\text{cm}$.

find the length of $\overline{CD}$.



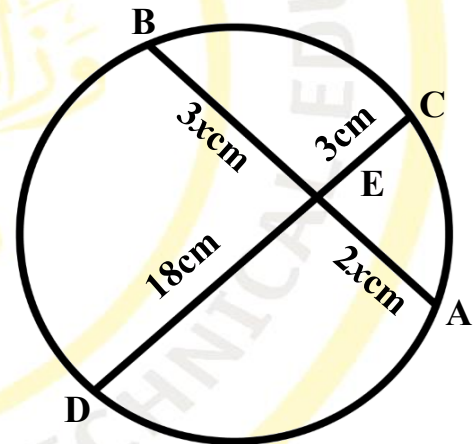
First group

- (1) If L, m are the two roots of the equation $2x^2 - 4x + 5 = 0$
form the quadratic equation of roots $5L^2, 5m^2$
- (2) If L, m are the two roots of the equation $x^2 - 5x + 3 = 0$
find the value of: $(L - m)^2$
- (3) Find the general solution of the equation: $\sin 5\theta = \cos \theta$.
- (4) If $\tan 3\theta = \cot 2\theta$, where θ is the measure of an acute positive angle.
Find θ .
- (5) In the opposite figure:
 $\overline{AB}, \overline{CD}$ are two chords of a circle
 $\overline{AB} \cap \overline{CD} = \{E\}$,
 $EA = (3x)\text{cm}$,
 $EC = 6\text{cm}, ED = 18\text{cm}$
 $EB = (4x)\text{cm}$,
find the value of x



Second group

- (1) If L, m are the two roots of the equation $2x^2 - 6x + 3 = 0$
form the quadratic equation of roots $4L^2, 4m^2$
- (2) If L, m are the two roots of the equation $x^2 - 6x + 5 = 0$
find the value of: $(L - m)^2$
- (3) Find the general solution of the equation: $\sin 7\theta = \cos 2\theta$.
- (4) If $\tan 5\theta = \cot \theta$, where θ is the measure of an acute positive angle.
Find θ .
- (5) In the opposite figure:
 $\overline{AB}, \overline{CD}$ are two chords of a circle
 $\overline{AB} \cap \overline{CD} = \{E\}$,
 $EA = (2x)\text{cm}$,
 $EC = 3\text{cm}, ED = 18\text{cm}$
 $EB = (3x)\text{cm}$,
find the value of x



Third group

- (1) If L, m are the two roots of the equation $2x^2 - 8x + 3 = 0$
form the quadratic equation of roots $2L^2, 2m^2$
- (2) If L, m are the two roots of the equation $x^2 - 8x + 3 = 0$
find the value of: $(L - m)^2$
- (3) Find the general solution of the equation: $\sin 6\theta = \cos 3\theta$.
- (4) If $\tan 3\theta = \cot \theta$, where θ is the measure of an acute positive angle.
Find θ .
- (5) In the opposite figure:
 $\overline{AB}, \overline{CD}$ are two chords of a circle
 $\overline{AB} \cap \overline{CD} = \{E\}$,
 $EA = 6\text{cm}$,
 $EC = x\text{ cm}, ED = (6x)\text{cm}$
 $EB = 9\text{ cm}$,
find the value of x

