

وزارة التربية والتعليم و التعليم الفنى

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

د/ هالة عبد السلام خفاجى

إشراف علمي

مستشار الرياضيات

أ/ منال عزقول

# أداءات وتقييمات لمنهج الرياضيات

للصف الأول الثانوي لغات

الفصل الدراسى الأول

للعام الدراسي ٢٠٢٦ / ٢٠٢٧

## الأسبوع الثامن

لجنة الأعداد

أ/ عصام الجزار  أ/ إيهاب فتحى  أ/ عفاف جاد

ترجمة

أ/ محسب على

مراجعة

أ/ شريف البرهامى  أ/ محمود درويش

**(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.

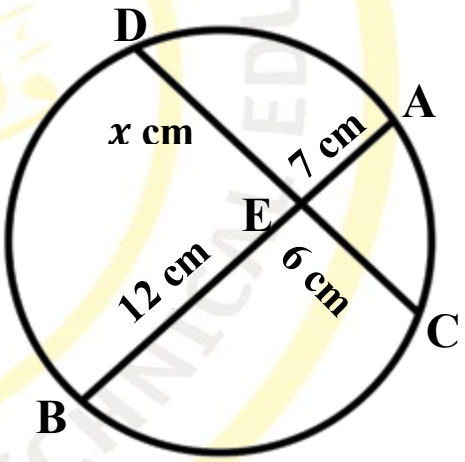
**(2)** If $\frac{2}{L}, \frac{2}{m}$ are the two roots of the equation $4x^2 + 3x - 2 = 0$, find the quadratic equation of roots L, m .

**(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.

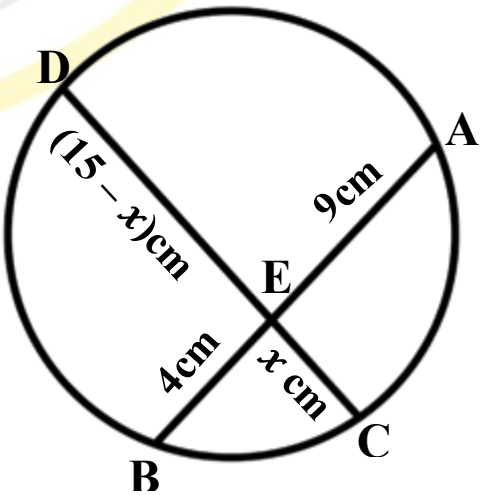
**(4)** Find the general soluation of the equation: $cos3\theta = sin\theta$.

**(5)** Find one of the values of $\theta$ $wher$ $0° < \theta < 90°$ which satisfies the equation $sin(3\theta + 15°) = cos(2\theta - 5°)$

**(6)** In the opposite figure:
$\overline{AB}, \overline{CD}$ are two chords of a circle
$\overline{AB} \cap \overline{CD} = \{E\}$, $EA = 7cm$,
$EB = 12cm$, $EC = 6cm$,
$ED = x$ cm, find the value of $x$

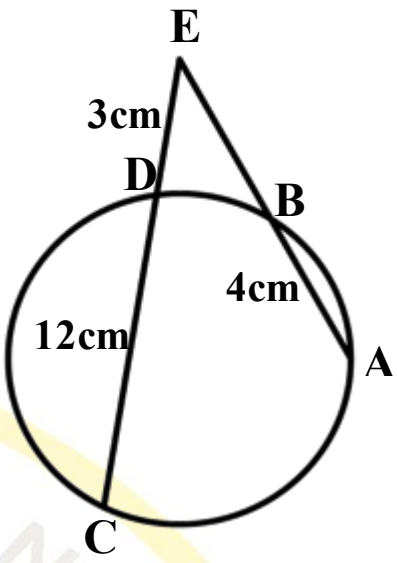



**(7)** In the opposite figure:
$\overline{AB}, \overline{CD}$ are two chords of a circle
$\overline{AB} \cap \overline{CD} = \{E\}$, $EA = 9cm$,
$EC = x$ cm, $ED = (15 - x)cm$.
$EB = 4cm$, find the value of $x$.



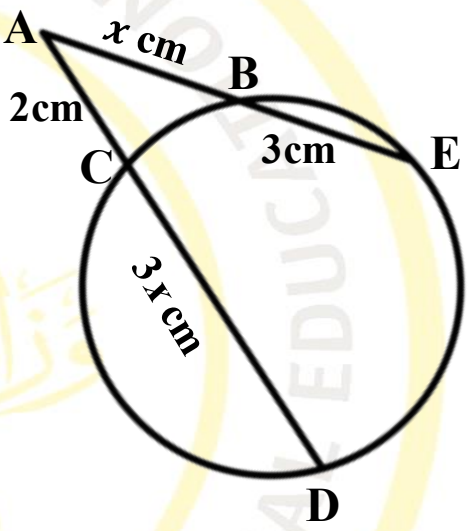
**(8)** **In the opposite figure:**

$\overline{AB}, \overline{CD}$ are two chords of a circle
$\overrightarrow{AB} \cap \overrightarrow{CD} = \{E\}, AB = 4cm$
$ED = 3cm, CD = 12cm$
Find the length of $\overline{EB}$.



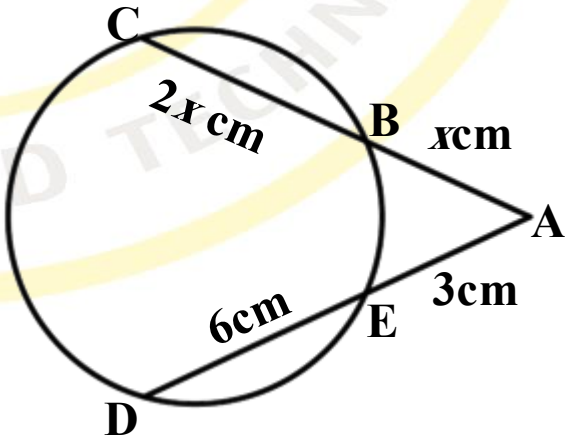

**(9)** **In the opposite figure:**

$\overline{EB}, \overline{CD}$ are two chords of a circle
$\overrightarrow{EB} \cap \overrightarrow{DC} = \{A\}, EB = 3cm,$
$AB = x$ cm, $AC = 2cm.$
$CD = (3x)cm$
find the value of $x$




**(10)** **In the opposite figure:**

$\overline{EB}, \overline{CD}$ are two chords
of a circle $\overrightarrow{EB} \cap \overrightarrow{DC} = \{A\},$
$AE = 3cm, AB = xcm$
$BC = 2xcm, DE = 6cm$
find the value of $x$



(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 $L^2,\ m^2$

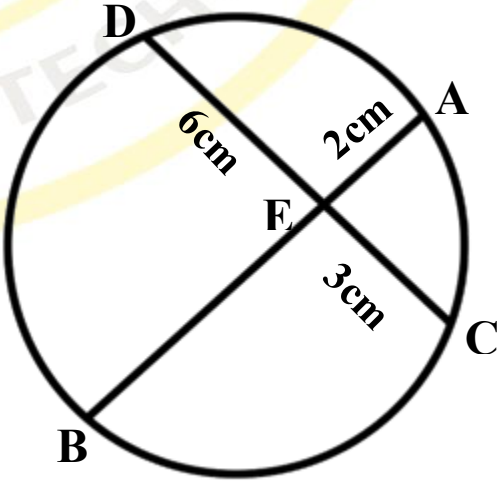
(3) Find the quadratic equation whose roots are duble the roots of the equation: $2x^2 - 8x + 5 = 0$

(4) Find the general soluation of the equation: $\sin 4\theta = \cos 2\theta$.

(5) Find the general soluation of the equation: $cos5\theta = sin\theta$.

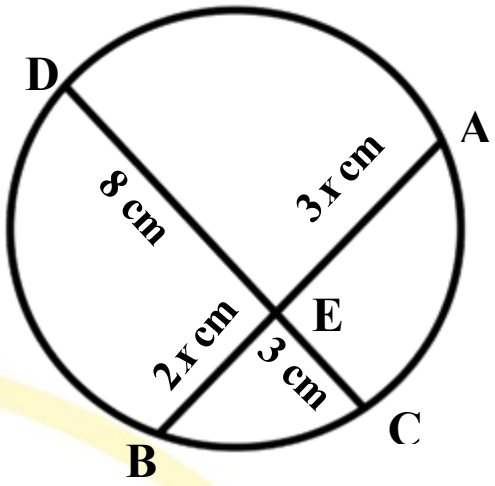
(6) Find one of the values of $\theta$ $wher$ $0° < \theta < 90°$ which satisfies the equation: $tan(\theta + 20°) = cot(3\theta + 30°)$.

(7) In the opposite figure:
$\overline{AB}, \overline{CD}$ are two chords of a circle
$\overline{AB} \cap \overline{CD} = \{E\}$, $EA = 2cm$,
$EC = 3cm, ED = 6cm$.
find the length of $\overline{EB}$.



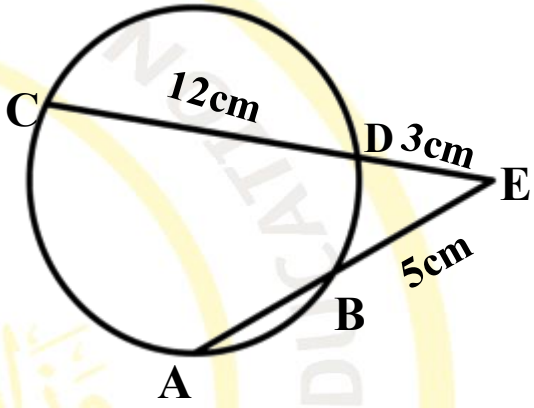
**(8) In the opposite figure:**

$\overline{AB}, \overline{CD}$ are two chords of a circle
$\overline{AB} \cap \overline{CD} = \{E\}$, $EA = (3x)cm$,
$EB = (2x)cm$, $EC = 3cm$,
$ED = 8cm$. Find $x$



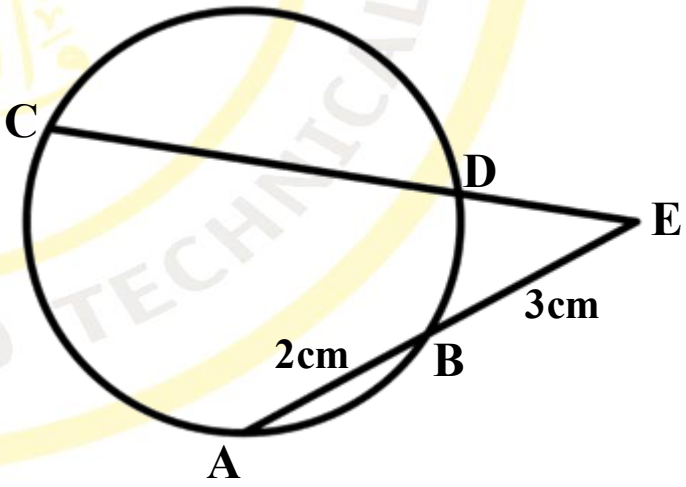

**(9) In the opposite figure:**

$\overline{AB}, \overline{CD}$ are two chords of a circle
$\overrightarrow{AB} \cap \overrightarrow{CD} = \{E\}$, $EB = 5cm$,
$DC = 12cm$, $ED = 3cm$.
find the length of $\overline{AB}$.




**(10) In the opposite figure:**

A circle in which
$\overrightarrow{AB} \cap \overrightarrow{CD} = \{E\}$, $EB = 3cm$,
$EC = 7.5cm$, $AB = 2cm$.
find the length of $\overline{CD}$.



# First group

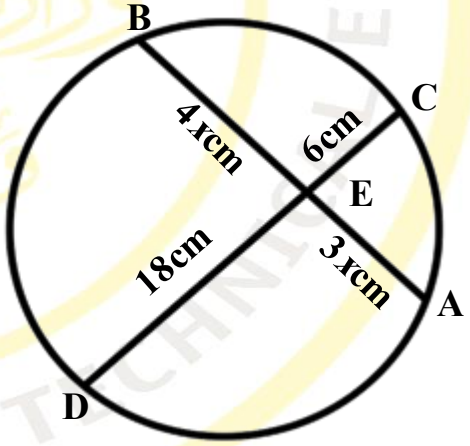
(1) If L, m are the two roots of the equation $2x^2 - 4x + 5 = 0$
form the quadratic equation of roots $5L^2,\ 5m^2$

(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 soluation of the equation: $sin5\theta = cos\theta$.

(4) If $tan3\theta = cot2\theta$, where $\theta$ is the measure of an acute positive angle.
Find $\theta$.

(5) In the opposite figure:
$\overline{AB}, \overline{CD}$ are two chords of a circle
$\overline{AB} \cap \overline{CD} = \{E\}$,
$EA = (3x)cm$,
$EC = 6cm, ED = 18cm$
$EB = (4x)cm$,
find the value of $x$



# Second group

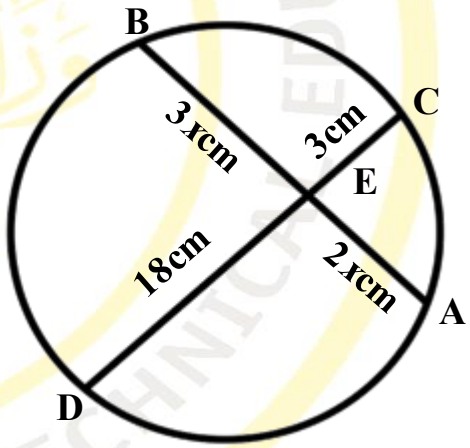
(1) If L, m are the two roots of the equation $2x^2 - 6x + 3 = 0$
form the quadratic equation of roots $4L^2,\ 4m^2$

(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 soluation of the equation: $sin7\theta = cos2\theta$.

(4) If $tan5\theta = cot\theta$, where $\theta$ is the measure of an acute positive angle.
Find $\theta$.

(5) In the opposite figure:
$\overline{AB}, \overline{CD}$ are two chords of a circle
$\overline{AB} \cap \overline{CD} = \{E\}$,
$EA = (2x)cm$,
$EC = 3cm, ED = 18cm$
$EB = (3x)cm$,
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 soluation of the equation: $sin6\theta = cos3\theta$.

(4) If $tan3\theta = cot\theta$, where $\theta$ is the measure of an acute positive angle.
Find $\theta$.

(5) In the opposite figure:
$\overline{AB}, \overline{CD}$ are two chords of a circle
$\overline{AB} \cap \overline{CD} = \{E\}$,
$EA = 6cm$,
$EC = x\ cm, ED = (6x)cm$
$EB = 9\ cm$,
find the value of $x$

