



وزارة التربية والتعليم و التعليم الفنى

الإدارة المركزية للتعليم العام

إدارة تنمية مادة الرياضيات

برعاية معالي وزير التربية والتعليم و التعليم العام

السيد الأسناذ / محمد عبد اللطيف

ونوجيهات رئيس الإدارة المركزية للتعليم العام

د / هالة عبد السلام خفاجى

إشراف علمي

مسنشار الرياضيات

أ / منال عزقول

إدعاءات ونقييمات لمنهج الرياضيات

للمصف الأول الثانوي لفات

الفصل الدراسى الأول

للعام الدراسى ٢٠٢٦ / ٢٠٢٧

الأسبوع الخامس

لجنة الإعداد

أ / إيهاب فنكى / أ / عصام الجزار / أ / عبير نجاح / أ / عفاف جاد

ترجمة

أ / محسب على

مراجعة

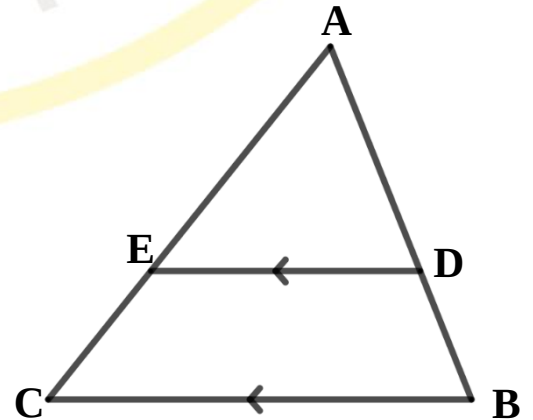
أ / محمود درويش

أ / شريف البرهامى



5 الرياضيات لغات الصف الأول الثانوي الأداء الصفى الأسبوع الخامس 5

- 1) Find the value of k which makes the two roots of the equation:
 $x^2 + 4x + k = 0$ different real.
- 2) If the roots of the equation: $x^2 + 2(k - 1)x = -2k - 1 = 0$ are equal find:
First: the real value of k
Second: the two roots of this equation
- 3) Determine the types of the roots of the equation: $3x + 10 = \frac{4}{x}$
- 4) If $90^\circ < \theta < 180^\circ$, $\sin \theta = \frac{4}{5}$, find: $\cos \theta$, $\tan \theta$ (where θ is the measure of a directed angle in its standard position in the unit circle)
- 5) If $180^\circ < \theta < 270^\circ$, $12 \sec \theta = -13$, find: $\cos \theta$, $\sin \theta$, $\tan \theta$ (where θ is the measure of a directed angle in its standard position in the unit circle)
- 6) If $\frac{3\pi}{2} < \theta < 2\pi$, $5 \tan \theta = -12$, find: $\sin \theta$, $\cos \theta$ (where θ is the measure of a directed angle in its standard position in the unit circle)
- 7) In the opposite figure:
ABC is a triangle, $D \in \overline{AB}$,
where $\frac{AD}{DB} = \frac{3}{2}$, draw $\overrightarrow{DE} \parallel \overrightarrow{BC}$
to intersect $\overline{AC}$ at E,
if the area of $\triangle ABC = 225\text{cm}^2$.
Find the area of $\triangle ADE$

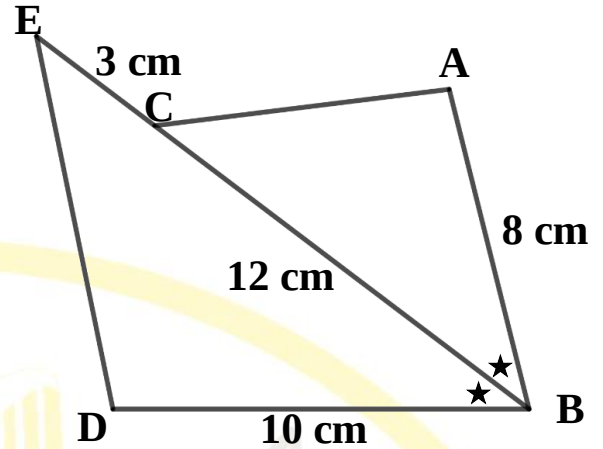


8) In the opposite figure:

$\overrightarrow{BE}$ bisects $\angle ABD$,

Area of $(\triangle ABC) = 48\text{cm}^2$.

Find the area of $\triangle DBE$



9) The ratio between two corresponding sides of two similar triangles is 2 : 5, if the area of the smaller triangle is 20 cm^2 .

Find the area of the larger triangle.

10) If the ratio between the perimeters of two similar triangles equals 1 : 4, if the sum of the areas of the two triangles equals 204 cm^2 , find the area of each triangle.



5 الرياضيات لغات للصف الأول الثانوي الأداء المنزلي الأسبوع الخامس 5

1) Find the value of m which makes the two roots of equation:

$$x^2 - 2x + m = 0, \text{ different real.}$$

2) If the roots of the equation: $x^2 - 2(k + 3)x + 7k + 9 = 0$ are equal find:

First: the values of k

Second: the two roots of this equation.

3) Determine the types of the roots of the equation: $x + \frac{5}{x} = 2$.

4) If $90^\circ < \theta < 180^\circ$, $\cos \theta = \frac{-4}{5}$, find $\sin \theta$, $\tan \theta$ (where θ is the measure of a directed angle in its standard position in the unit circle).

5) If $180^\circ < \theta < 270^\circ$, $13 \sin \theta = -12$, find $\cos \theta$, $\tan \theta$ (where θ is the measure of a directed angle in its standard position in the unit circle).

6) If $\frac{3\pi}{2} < \theta < 2\pi$, $5 \tan \theta + 12 = 0$, find $\sin \theta$, $\cos \theta$, (where θ is the measure of a directed angle in its standard position in the unit circle)

7) In the opposite figure:

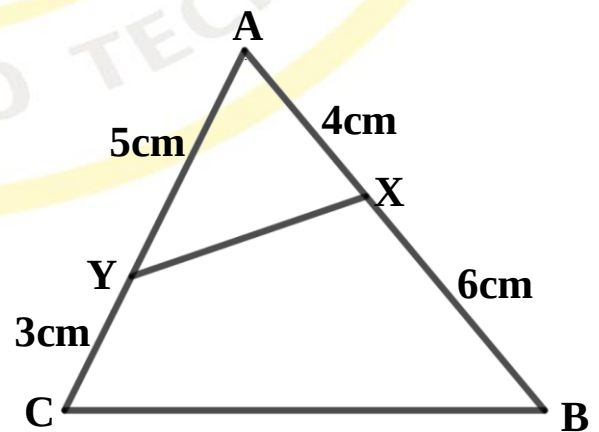
ABC is a triangle, $X \in \overline{AB}$,
where $AX = 4$ cm, $XB = 6$ cm
 $Y \in \overline{AC}$, where $AY = 5$ cm,
 $YC = 3$ cm.

First: Prove that $\triangle ABC \sim \triangle AYX$

Second: If area of $\triangle AYX = 8 \text{ cm}^2$,

Find area of $\triangle ABC$

Third: find area of the figure XBCY



8) In the opposite figure:

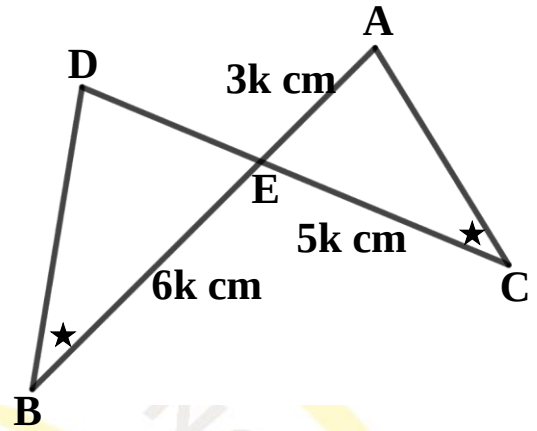
$\overline{AB} \cap \overline{CD} = \{E\}$, $AE = 3k$ cm,
 $BE = 6k$ cm, $CE = 5k$ cm, ($k > 0$)
 $m(\angle C) = m(\angle B)$

Find:

First the length of $\overline{DE}$

Second the area of $\triangle DBE$ if the

Area of $\triangle ACE = 900\text{cm}^2$



9) ABC is a triangle $D \in \overline{AB}$ where $AD = 2BD$, $E \in \overline{AC}$
where $\overline{ED} \parallel \overline{BC}$, if the area of triangle $ADE = 60\text{ cm}^2$,
find the area of the trapezume $DBCE$.

10) If the ratio between the areas of two similar triangles equals $16 : 49$

First: find the ratio between the lengths of two corresponding sides.

Second: find the ratio between their perimeters.

Third: if the sum of the perimeters of the two triangles equals 33cm ,
then find the perimeter of each of them.



5 الرياضيات لغات للصف الأول الثانوي التقييمات الأسبوعية الأسبوع الخامس 5

First Group

- (1) Prove that the two roots of the equation: $2x^2 + 3x - 5 = 0$ are different real.
- (2) If $7\csc \theta = 25$, where $\frac{\pi}{2} < \theta < \pi$, find $\cos \theta, \sin \theta, \tan \theta$. (where θ is the measure of a directed angle in its standerd postion in the unit circle)
- (3) If θ is the measure of a directed angle in the standerd postion and its terminal side intersects the unit circle at the point $(\frac{1}{\sqrt{2}}, y)$ where $y < \text{zero}$, find $\cos \theta, \sin \theta, \tan \theta$
- (4) If $\triangle ABC \sim \triangle XYZ$, $\frac{AB}{XY} = \frac{2}{3}$, and area of $\triangle ABC$ is 24cm^2 , Find the area of $\triangle XYZ$
- (5) ABCD is a quadrilateral in which $BC = 27 \text{ cm}$, $AB = 12 \text{ cm}$, $AD = 8 \text{ cm}$, $DC = 12 \text{ cm}$, $AC = 18 \text{ cm}$, find the ratio between the areas of two triangles BAC, ADC.



Second group

- (1) Prove that the two roots of the equation $2x^2 + 3x - 1 = 0$ are different real.
- (2) If $7 \cot \theta = 27$, where $\pi < \theta < \frac{3\pi}{2}$, find: $\cos \theta, \sin \theta, \tan \theta$ (where θ is the measure of a directed angle in its standerd postion in the unit circle)
- (3) If θ is the measure of a directed angle in the standerd postion and its terminal side intersects the unit circle at the point $(x, \frac{1}{\sqrt{2}})$ where $x < \text{zero}$, find $\cos \theta, \sin \theta, \tan \theta$
- (4) If $\triangle ABC \sim \triangle XYZ$, $\frac{AB}{XY} = \frac{3}{2}$, and area of $\triangle ABC$ is 27 cm^2 , find the area of $\triangle XYZ$
- (5) ABCD is a quadrilateral in which $BC = 13.5 \text{ cm}$, $AB = 6 \text{ cm}$, $AD = 4 \text{ cm}$, $DC = 6 \text{ cm}$, $AC = 9 \text{ cm}$, find the ratio between the areas of the two triangles BAC, ADC.



Third group

- (1) Prove that the two roots of the equation: $x^2 + 3x - 7 = 0$ are different real.
- (2) If $7 \sec \theta = 25$, where $\frac{3\pi}{2} < \theta < 2\pi$, find $\cos \theta, \sin \theta, \tan \theta$ (where θ is the measure of a directed angle in its standard position in the unit circle)
- (3) If θ is the measure of a directed angle in the standard position and its terminal side intersects the unit circle at the point $(\frac{\sqrt{3}}{2}, y)$ where $y > 0$, find $\cos \theta, \sin \theta, \tan \theta$
- (4) If $\triangle ABC \sim \triangle XYZ$, $\frac{AB}{XY} = \frac{1}{4}$, and area of $\triangle ABC$ is 18cm^2 , find the area of $\triangle XYZ$
- (5) ABCD is a quadrilateral in which $BC = 54\text{cm}$, $AB = 24\text{cm}$, $AD = 16\text{cm}$, $DC = 24\text{cm}$, $AC = 36\text{cm}$, find the ratio between the areas of two triangles BAC, ADC.