

وزارة التربية والتعليم و التعليم الفنى

الإدارة المركزية للتعليم العام

إدارة تنمية مادة الرياضيات

برعاية معالي وزير التربية والتعليم و التعليم العام

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وتوجيهات رئيس الإدارة المركزية للتعليم العام

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إشراف علمي

مستشار الرياضيات

أ/ منال عزقول

أداءات وتقييمات لمنهج الرياضيات

للصف الأول الثانوي لغات

الفصل الدراسى الأول

للعام الدراسي ٢٠٢٦ / ٢٠٢٧

الأسبوع الخامس

لجنة الإعداد

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

ترجمة

أ/ محسب على

مراجعة

أ/ شريف البرهامى أ/ محمود درويش

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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 equale find:
First: the real value of k
Second: the two roots of this equation

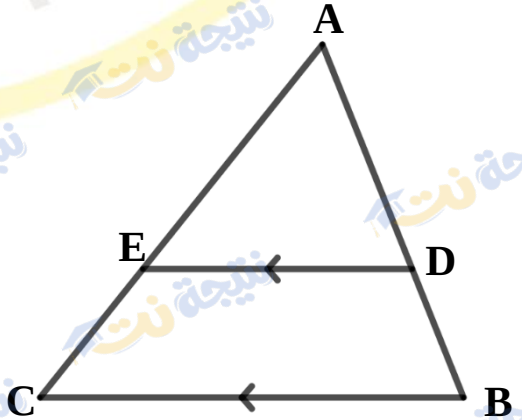
3) Determain the types of the roots of the equation: $3x + 10 = \frac{4}{x}$

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 standerd postion 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 standerd postion 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 standerd postion 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 $\overrightarrow{DE} \,//\, \overline{BC}$
to intersects $\overline{AC}$ at E,
if the area of $\triangle ABC = 225cm^2$.
Find the area of $\triangle ADE$



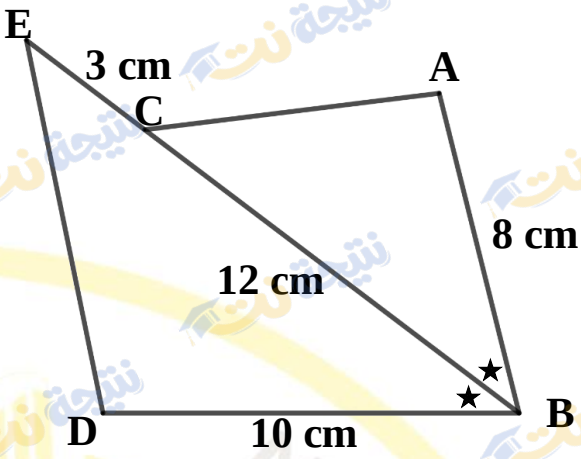
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8) In the opposite figure:

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

Area of $(\triangle ABC) = 48cm^2$**.**

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 permiters 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.

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1) Find the value of m which makes the two roots of equation:
$x^2 - 2x + m = 0$, different real.

2) If the roots of the equation: $x^2 - 2(k+3)x + 7k + 9 = 0$ are equale find:
First: the values of k
Second: the two roots of this equation.

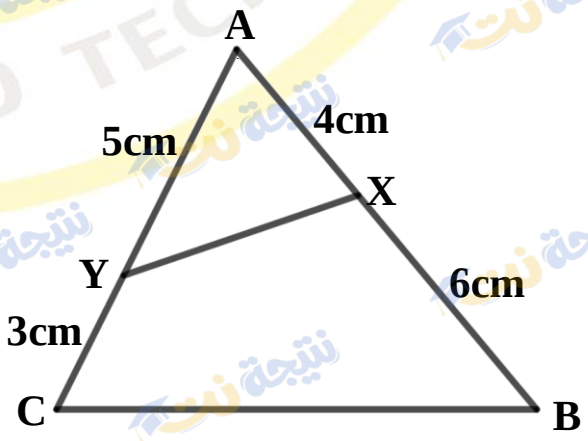
3) Determain the types of the roots of the equation: $x + \frac{5}{x} = 2$.

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

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

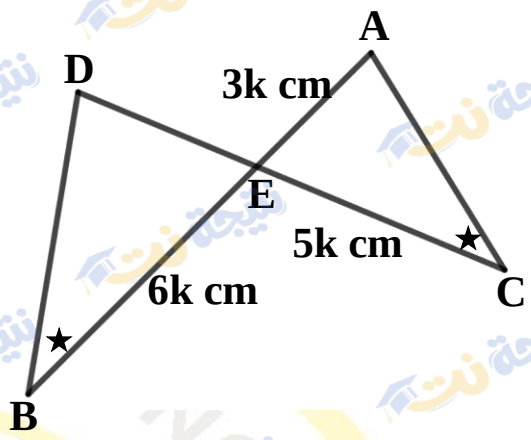
7) In the opposite figure:
ABC is a triangle, X∈ $\overline{AB}$,
where AX = 4 cm, XB = 6 cm
Y ∈ $\overline{AC}$, where AY = 5 cm,
YC = 3 cm.
First: Prove that△ ABC ~△ AYX
Second: If area of △ AYX = $8cm^2$,
Find area of △ ABC
Third: find area of the figure XBCY



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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 $\triangle ACE = 900cm^2$



9) ABC is a triangle D∈ $\overline{AB}$ where AD = 2BD, E∈ $\overline{AC}$ where $\overline{ED}$ // $\overline{BC}$, if the area of triangle ADE = 60 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.

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First Group

(1) Prove that the two roots of the equation: $2x^2 + 3x - 5 = 0$ are different real.

(2) If $7csc\,\theta = 25, where\ \frac{\pi}{2} < \theta < \pi,$ 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 $y <$ zero, find cos θ, sin θ ,tan θ

(4) If $\triangle ABC \sim \triangle XYZ$, $\frac{AB}{XY} = \frac{2}{3}$, and area of $\triangle ABCis\ 24cm^2$, Find the area of $\triangle XYZ$

(5) ABCD is a quadrilateral in which BC = 27 cm, AB = 12 cm, AD = 8 cm, DC = 12 cm, AC = 18 cm, find the ratio between the areas of two triangles BAC, ADC.

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Second group

(1) Prove that the two roots of the equation $2x^2 + 3x - 1 = 0$ are different real.

(2) If $7cot\ \theta = 27, where\ \pi < \theta < \frac{3\pi}{2}$, 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 $x <$ zero, find cos θ , sin θ ,tanθ

(4) If $\triangle$ ABC $\sim \triangle$ XYZ, $\frac{AB}{XY} = \frac{3}{2}$, and area of $\triangle\ ABCis\ 27cm^2$, find the area of $\triangle\ XYZ$

(5) ABCD is a quadrilateral in which BC = 13.5 cm, AB = 6cm, AD = 4 cm, DC = 6 cm, AC = 9 cm, find the ratio between the areas of the two triangles BAC, ADC.

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Third group

(1) Prove that the two roots of the equation: $x^2 + 3x - 7 = 0$ are different real.

(2) If $7sec\,\theta = 25, where\ \frac{3\pi}{2} < \theta < 2\pi$, find $cos\,\theta, sin\,\theta, tan\theta$ (where θ is the measure of a directed angle in its 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 $(\frac{\sqrt{3}}{2}, y)$ wher $y >$ zero, find cos θ , sin θ ,tanθ

(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 = 54cm, AB = 24cm, AD = 16 cm, DC = 24 cm, AC = 36 cm, find the ratio between the areas of two triangles BAC, ADC.

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