



وزارة التربية والتعليم و التعليم الفني

الإدارة المركزية للتعليم العام

إدارة تنمية مادة الرياضيات

برعاية معالي وزير التربية والتعليم و التعليم العام

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ونوجيهات رئيس الإدارة المركزية للتعليم العام

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إشراف علمي

مسنشار الرياضيات

أ / منال عزقول

إدعاءات ونقييمات لمنهج الرياضيات

للسف الأول الثانوي لفات

الفصل الدراسي الأول

للعام الدراسي ٢٠٢٦ / ٢٠٢٧

الاسبوع الثالث

لجنة الإعداد

أ / إيهاب فنكى أ / عصام الجزار أ / نفيسة رمضان

ترجمة

أ / إمانى الشهاوى أ / محمود البشلاوى أ / بلال محمد رومية

مراجعة

أ / شريف البرهامى أ / محمود درويش



First secondary grade - Classroom performance - Third week

1) Find the values of x and y that satisfy the following equation:

$$(3x - y) + (x - 3y)i = 5 - i$$

2) Find the product of each of the following in simplest form:

(a) $(2 + \sqrt{-9})(2 - 3i)$

(b) $(1 + i)^6$

3) Put the number $\frac{2-3i}{3+2i}$ as a complex number, $i^2 = -1$

4) Find in π the radian measure of the angles whose measure is

(a) 30° (b) 90° (c) 180° (d) 390° (e) -135°

(f) -750° (g) $25^\circ 18'$ (h) $160^\circ 50' 48''$

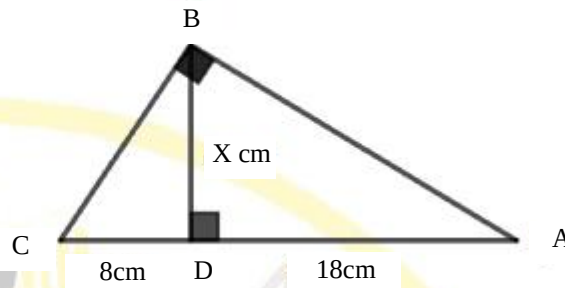
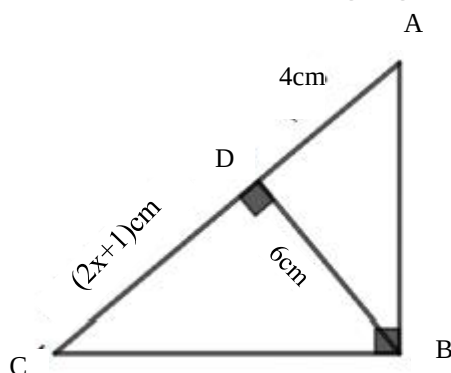
5) Find the degree measure of the angles whose measures are as follows:

(a) 0.94^{rad} (b) 2.27^{rad} (c) 1.2^{rad} (d) -1.05^{rad}

6) A central angle of 120° encloses an arc of length 10 cm. Calculate the length of the radius of its circle to the nearest tenth.



7) In each of the following figures, find the numerical values of x .



8) In the opposite figure:

$\triangle ABC$ is a right triangle at A, $\overline{AD} \perp \overline{BC}$

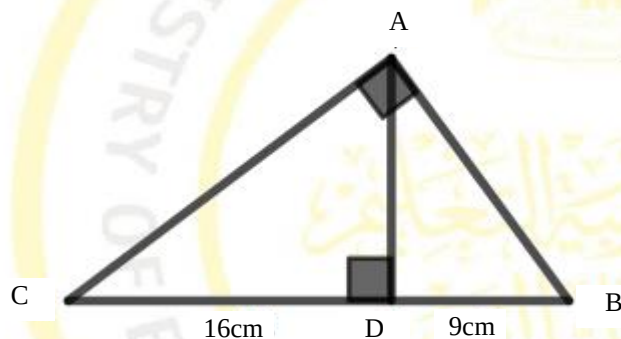
$BD = 9$ cm, $DC = 16$ cm

First: Write the triangles that are similar to

$\triangle ABC$

Second: Find: The lengths of the following

sides $\overline{AB}$, $\overline{AC}$, $\overline{AD}$



9) In the opposite figure:

ABC is a triangle in which $AB = 6$ cm,

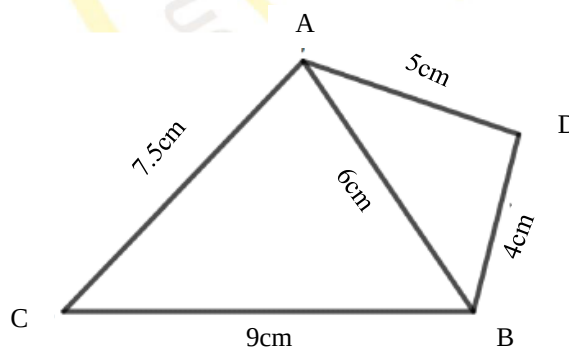
$BC = 9$ cm, $AC = 7.5$ cm,

D is a point outside the triangle ABC

such that $DB = 4$ cm, $DA = 5$ cm

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

Second: Prove that $\overline{AB}$ bisects $\angle DBC$





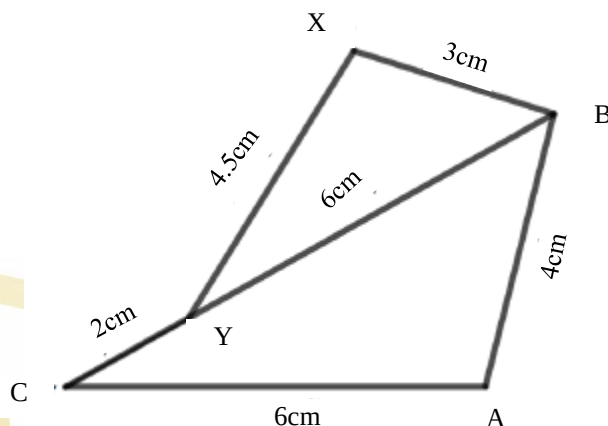
10) In the opposite figure:

Prove that:

First: $\triangle ABC \sim \triangle XBY$

Second: $\overrightarrow{BC}$ bisects $\angle ABX$

(Such that: B, Y, C are colinear)



First secondary grade – Homework performance - Third week

1) Find the values of x and y that satisfy the following equation:

$$(2x - 3y) + (3x - y)i = 7i$$

2) Find the following in simplest form:

(b) $(3 + 2i)(3 - 3i)$

(b) $(1 + i)^{24}$

3) Put the number $\frac{3-i}{3+i}$ as a complex number, where $i^2 = -1$

4) Find in π the radian measure of the angles whose measure is

(a) 45° (b) 60° (c) 120° (d) 360° (e) -125°

(f) -950° (g) $26^\circ 15'$ (h) $60^\circ 30' 30''$

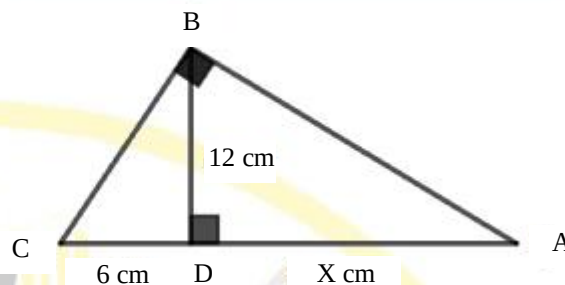
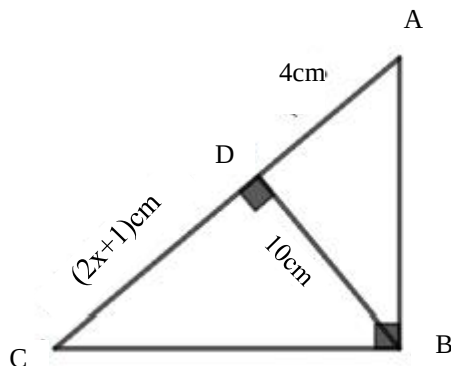
5) Find the degree measure of the angles whose measures are as follows:

(a) 0.59^{rad} (b) 2.17^{rad} (c) 1.3^{rad} (d) -1.07^{rad}

6) A central angle of 150° encloses an arc of length 10 cm.

Calculate the length of the radius of its circle to the nearest tenth.

7) In each of the following figures, find the numerical values of x .



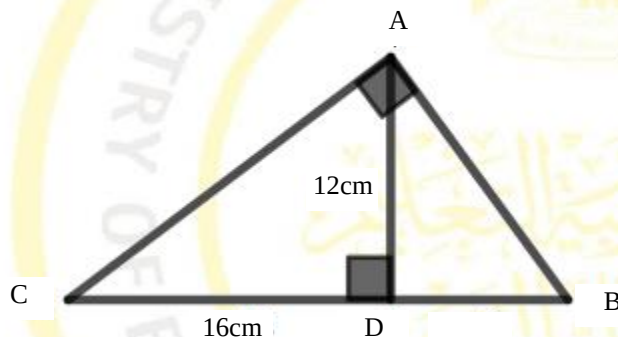
8) In the opposite figure:

$\triangle ABC$ is a right triangle at A , $\overline{AD} \perp \overline{BC}$,

$AD = 12$ cm, $DC = 16$ cm

First: Write the triangles that are similar to $\triangle ABC$

Second: Find: The lengths of the following sides $\overline{AB}$, $\overline{AC}$, $\overline{DB}$



9) In the opposite figure:

$\triangle ADB$ is a triangle in which $AB = 12$ cm,

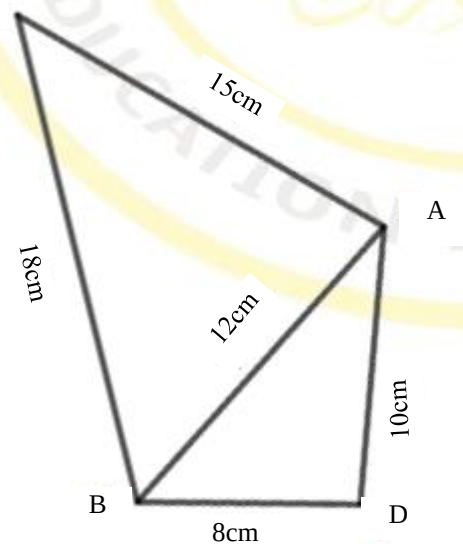
$AD = 10$ cm, $DB = 8$ cm,

C is a point outside the triangle ADB

such that $AC = 15$ cm, $CB = 18$ cm

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

Second: Prove that $\overrightarrow{BA}$ bisects $\angle DBC$





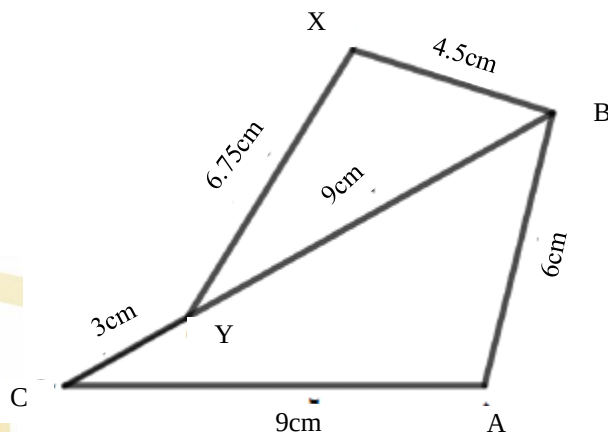
10) In the opposite figure:

Prove that:

First: $\triangle ABC \sim \triangle XBY$

Second: $\overrightarrow{BC}$ bisects $\angle ABX$

(Such that: B , Y , C are colinear)



First secondary grade – Weekly evaluation- Third week

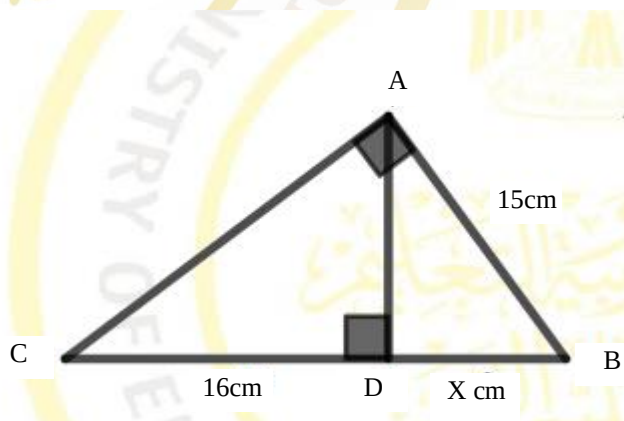
First group :

- 1) If $x = 3 + 2i$, $y = \frac{4-2i}{1+i}$ find $x+y$ as a complex number
- 2) Find the quadrant in which the angle with a measure of 150° lies, then find two angles, one with a positive measure and the other with a negative measure, that share the terminal side.
- 3) Find the radian measure and degree measure of the central angle subtended by an arc of length 14 cm in a circle of radius 10 cm.
- 4) In the opposite figure:

$\triangle ABC$ is a right triangle at A , $\overline{AD} \perp \overline{BC}$

, $AB = 15$ cm , $DC = 16$ cm , $DB = x$ cm

Find value of x (Remember $225 = 9 \times 25$)





5) In the opposite figure:

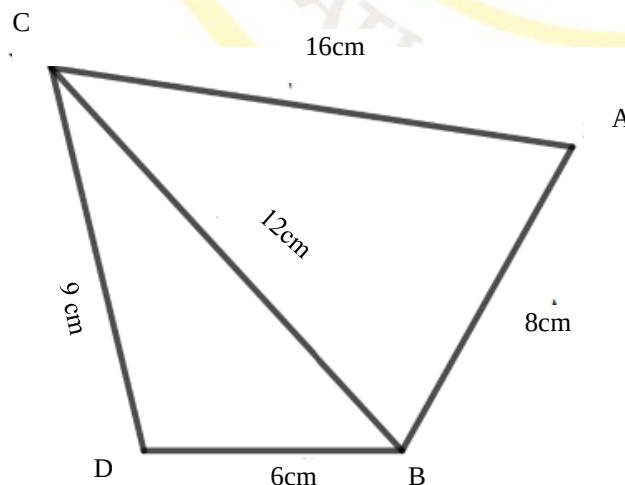
ABC is a triangle in which $AB = 8$ cm,

$AC = 16$ cm, $CB = 12$ cm,

D is a point outside the triangle ABC

such that $DB = 6$ cm, $DC = 9$ cm

Prove that: $\triangle ABC \sim \triangle BDC$



Second group :

1) If $x = 5 - 3i$, $y = \frac{5-i}{1-i}$ find $x+y$ as a complex number

2) Find the quadrant in which the angle with a measure of 210° lies, then find two angles, one with a positive measure and the other with a negative measure, that share the terminal side.

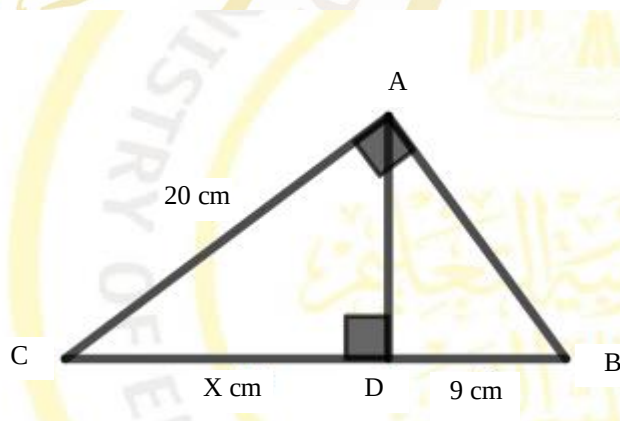
3) Find the radian measure and degree measure of the central angle subtended by an arc of length 16 cm in a circle of radius 10 cm.

4) In the opposite figure:

$\triangle ABC$ is a right triangle at A, $\overline{AD} \perp \overline{BC}$

, $AC = 20$ cm, $DB = 9$ cm, $DC = x$ cm

Find value of x (Remember $400 = 16 \times 25$)





5) In the opposite figure:

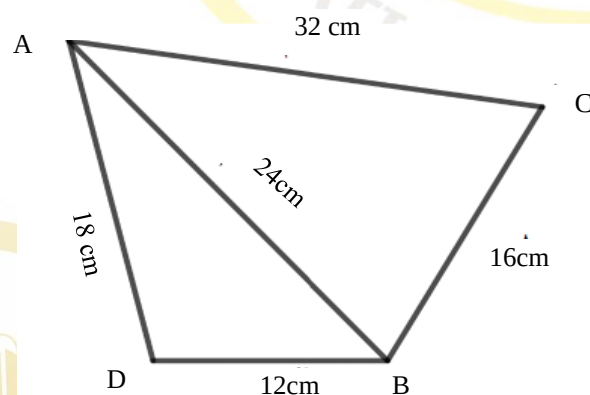
ABC is a triangle in which $AB = 24$ cm,

$AC = 32$ cm, $BC = 16$ cm,

D is a point outside the triangle ABC

such that $DB = 12$ cm, $AD = 18$ cm

Prove that: $\triangle ABC \sim \triangle ADB$



Third group :

1) If $x = 7 - i$, $y = \frac{7-3i}{1-i}$ find $x + y$ as a complex number

2) Find the quadrant in which the angle with a measure of 330° lies, then find two angles, one with a positive measure and the other with a negative measure, that share the terminal side.

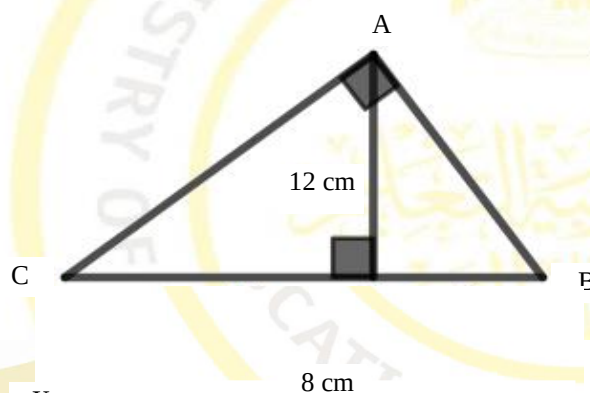
3) Find the radian measure and degree measure of the central angle subtended by an arc of length 15 cm in a circle of radius 10 cm.

4) In the opposite figure:

$\triangle ABC$ is a right triangle at A, $\overline{AD} \perp \overline{BC}$

, $AD = 12$ cm, $DB = x$ cm, $DC = (25-x)$ cm

Find value of x (Remember $144 = 16 \times 9$)



5) In the opposite figure:

XYZ is a triangle in which $XY = 8$ cm,

$YZ = 4$ cm, $XZ = 6$ cm,

L is a point outside the triangle XYZ

such that $LZ = 3$ cm, $LX = 4.5$ cm

Prove that: $\triangle XZY \sim \triangle XLZ$

