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 2025 / 2026

الأسبوع الثالث

لجنة الإعداد

أ/ إيهاب فتحى　　أ/ عصام الجزار　　أ/ نفيسة رمضان

ترجمة

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

مراجعة

أ/ شريف البرهامى

First secondary grade - Classroom performance - Third week

1) Find each of the following in simplest form:

(a) i^{45} (b) i^{-37} (c) $3i(-2i)$ (d) $(-2i)^2 (-3i)^2$

2) Find the solution set of the following equation in the set of complex numbers:

$4z^2 + 72 = 0$

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

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

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

(a) $(2 + \sqrt{-9})(2 - 3i)$ (b) $(1 + i)^6$

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

6) If the measure of a directed angle is equal to 120°, Answer the following:
- Find the quadrant in which it lies.
- Identify two angles, one with a positive measure and the other with a negative measure, that share the terminal side of this angle.

7) A circle has a radius of 10 cm. Find, to the nearest tenth, the length of the arc if the measure of the central angle $\frac{\pi}{4}$

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

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

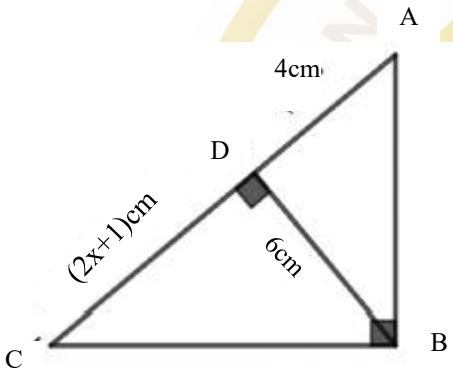
(f) −750° (g) 25° 18\ (h) 160° 50\ 48\\

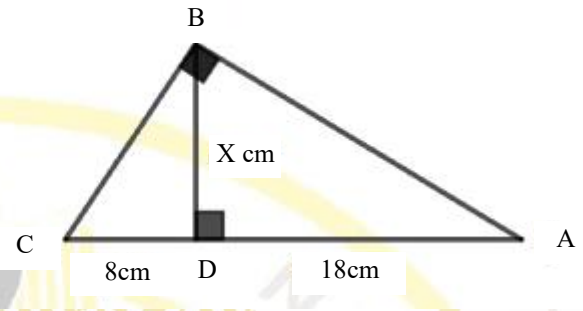
9) Find the degree measure of the angles whose measures are as follows:
(a) 0.94 rad (b) 2.27 rad (c) 1.2 rad (d) -1.05 rad

10) 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.

11) Find the radian measure and degree measure of the central angle subtended by an arc of length 8.7 cm in a circle of radius 4 cm.

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





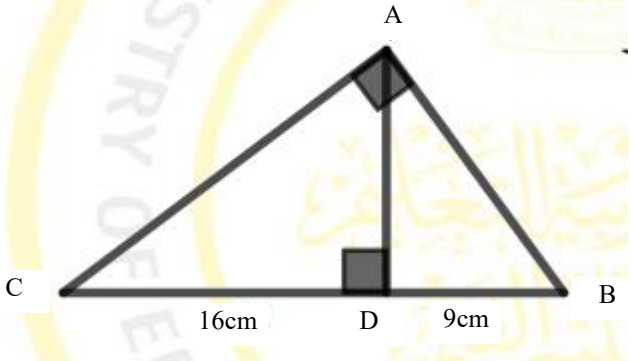
13) In the opposite figure:

ΔABC 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 ΔABC

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



14) In the opposite figure:

ABC is a triangle in which AB = 6 cm,

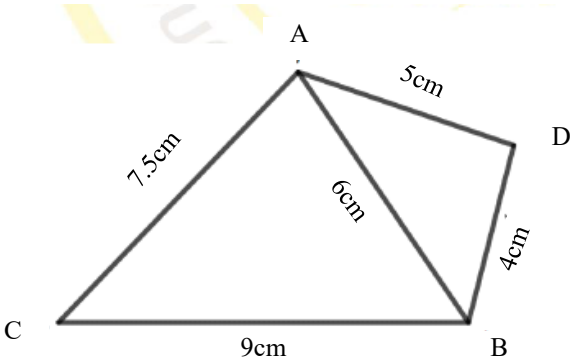
BC = 9 cm, AC = 7.5 cm,

D is a point outside the triangle ABC

such that DB = 4 cm, DA = 5 cm

First: Prove that: ΔABC ~ ΔDBA

Second: Prove that $\overrightarrow{AB}$ bisects ∠DBC



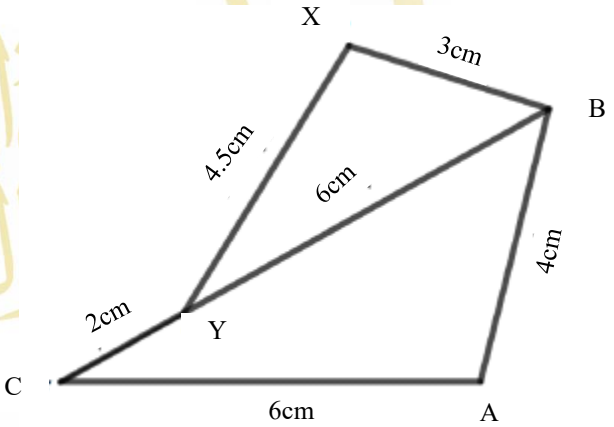
(15)In the opposite figure:

Prove that:

First: ΔABC ~ ΔXBY

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

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



First secondary grade – Homework performance - Third week

1) Find each of the following in simplest form:

(a) i^{65} (b) i^{-47} (c) $5i(-3i)$ (d) $(-4i)^4 (-2i)^4$

2) Find the solution set of the following equation in the set of complex numbers.

$4z^2 + 24 = 0$

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

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

4) Find the following in simplest form:

(b) $(3 + 2i)(3 - 3i)$ (b) $(1 + i)^{24}$

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

6) If the measure of a directed angle is equal to 150°, Answer the following:

- Find the quadrant in which it lies.
- Identify two angles, one with a positive measure and the other with a negative measure, that share the terminal side of this angle.

7) A circle has a radius of 8 cm. Find, to the nearest tenth, the length of the arc if the measure of the central angle $\frac{\pi}{4}$

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

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

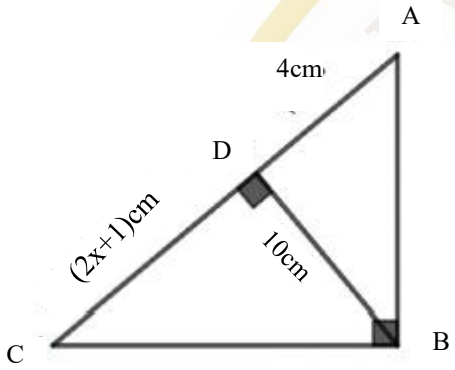
(f) $-950°$ (g) 26° 15\ (h) 60° 30\ 30\\

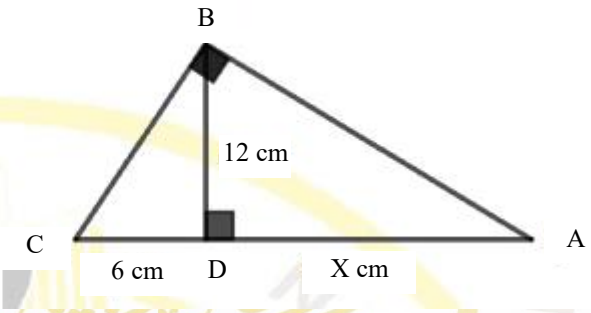
9) Find the degree measure of the angles whose measures are as follows:
(a) 0.59 rad (b) 2.17 rad (c) 1.3 rad (d) -1.07 rad

10) 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.

11) Find the radian measure and degree measure of the central angle subtended by an arc of length 8 cm in a circle of radius 4 cm.

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





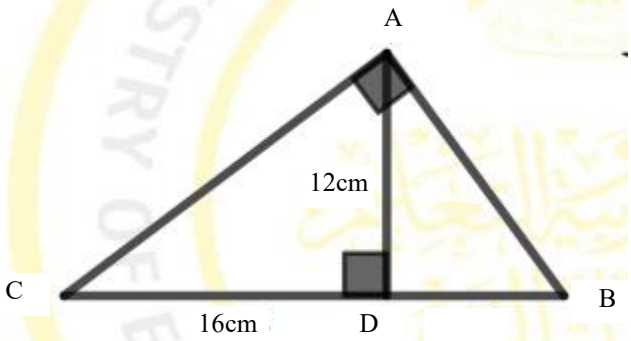
13) In the opposite figure:

ΔABC 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 ΔABC

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



14) In the opposite figure:

ADB is a triangle in which AB = 12cm,

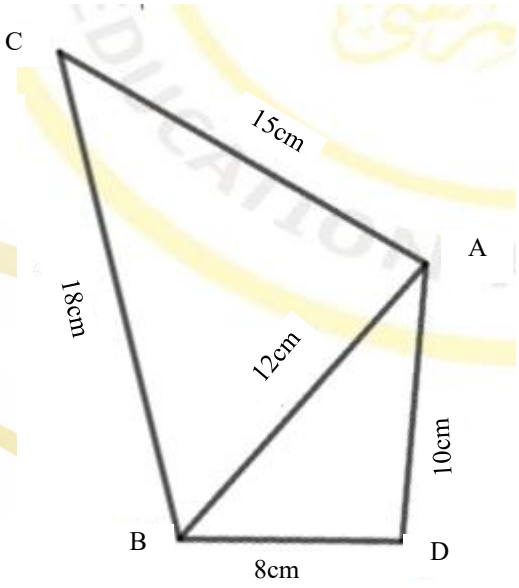
AD = 10 cm, DB = 8 cm,

C is a point outside the triangle ADB

such that AC = 15 cm, CB = 18 cm

First: Prove that: ΔABC ~ ΔDBA

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



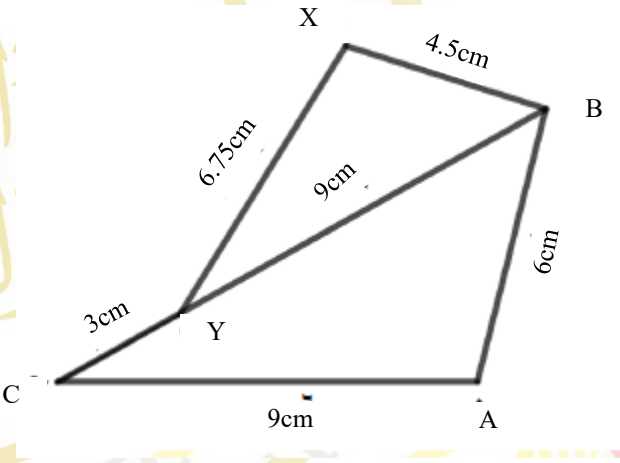
15)In the opposite figure:

Prove that:

First: ΔABC ~ ΔXBY

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

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



First secondary grade – Weekly evaluation- Third week

First group :

1) If x= 3 + 2 i , $y=\frac{4-2i}{1+i}$ *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.

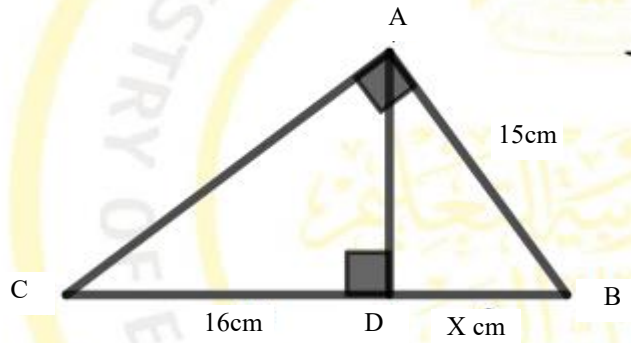
3) Find the radian measure and degree measure of the central angle subtended by an arc of length 14 cm in a circle of radius 10 cm.

4) In the opposite figure:

ΔABC 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 = 9×25)



5) In the opposite figure:

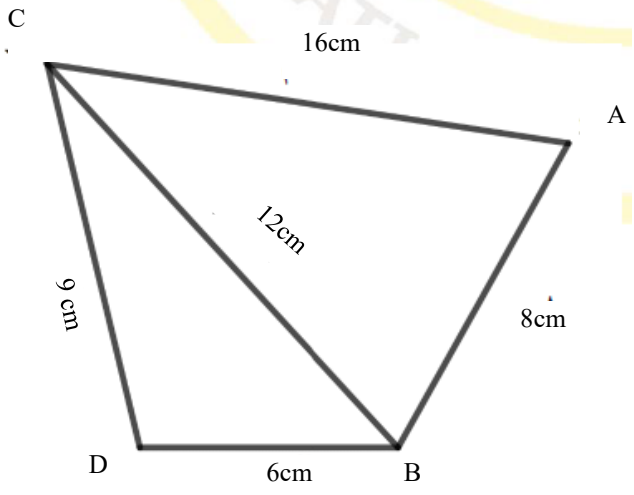
ABC is a triangle in which AB = 8 cm,

AC = 16 cm, CB = 12 cm,

D is a point outside the triangle ABC

such that DB = 6 cm, DC = 9 cm

Prove that: ΔABC ~ ΔBDC



Second group :

1) If x= 5 - 3 i , $y=\frac{5-i}{1-i}$ *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.

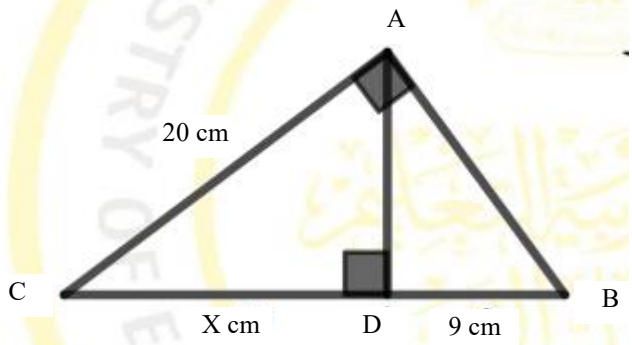
3) Find the radian measure and degree measure of the central angle subtended by an arc of length 16 cm in a circle of radius 10 cm.

4) In the opposite figure:

ΔABC 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× 25)



5) In the opposite figure:

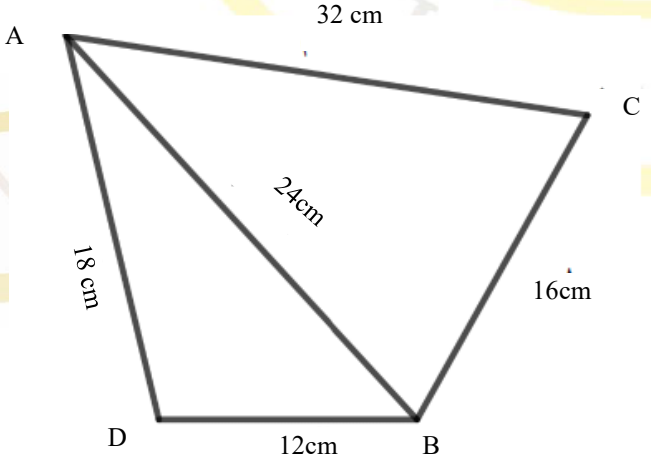
ABC is a triangle in which AB = 24 cm,

AC = 32 cm, BC = 16 cm,

D is a point outside the triangle ABC

such that DB = 12 cm, AD = 18 cm

Prove that: ΔABC ~ ΔADB



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.

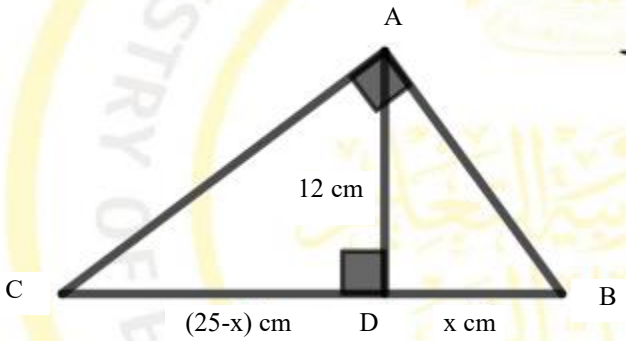
3) Find the radian measure and degree measure of the central angle subtended by an arc of length 15 cm in a circle of radius 10 cm.

4) In the opposite figure:

ΔABC 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 = 16×9)



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 = 4.5cm

Prove that: ΔXZY ~ ΔXLZ