وزارة التربية والتعليم
الإدارة المركزية لتطوير المناهج
مكتب مستشار الرياضيات

برعاية معالي وزير التربية والتعليم

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وتوجيهات رئيس الإدارة المركزية لتطوير المناهج

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أ/ منال عزقول

أداءات وتقييمات

للصف الأول الثانوي

للعام الدراسي 2024 / 2025

إعـــداد

أ/ إيهاب فتحي

أ/ نفيسة رمضان

مراجـــعة

أ/ عصام الجـــزار

ترجـــمة

أ/ محمود البشلاوي

مراجـــعة الترجـــمة

أ/ أماني الشهاوي

أ/ بلال محمد رومية

First secondary grade – Homework performance - Third week

1) Find each of the following in simplest form:

(1) i^{65} (2) i^{-47} (3) $5i(-3i)$ (4) $(-4i)^4 (-2i)^4$

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

$4z + 24 = 0$

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:

(a) $(3 + 2i)(3 - 3i)$ (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) $-125°$

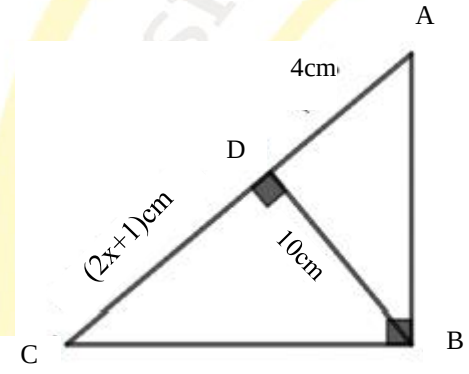
(f) $-950°$ (g) 26°15 (h) 60° 30 30

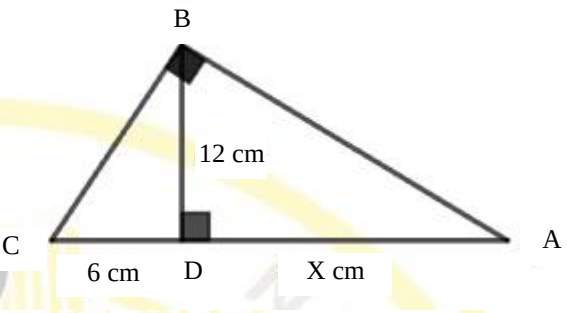
9) Find the degree measure of the angles whose measures are as follows:
(a) 0.59 rad (b) 2.17 rad (c) 1.3 rad (d) -1.07 rad

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.



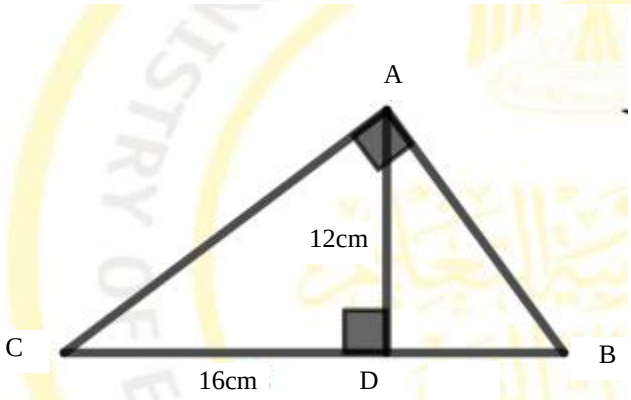


13) In the opposite figure:

ΔABC is a right triangle at A , AD ⊥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,

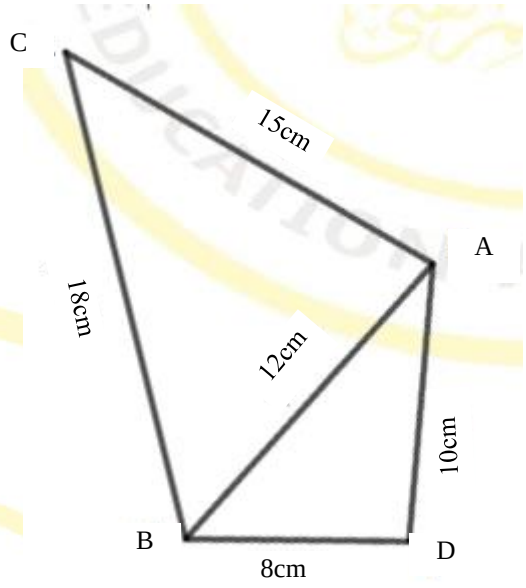
AD = 10 cm, DB = 8 cm,

C is a point outside the triangle ADB

such that AC = 15 cm, CB = 18 cm

First: Prove that: ΔABC ~ ΔDBA

Second: Prove that BA bisects ∠DBC



15)In the opposite figure:

Prove that:

First: ΔABC ~ ΔXBY

Second: BC bisects ∠ABX

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