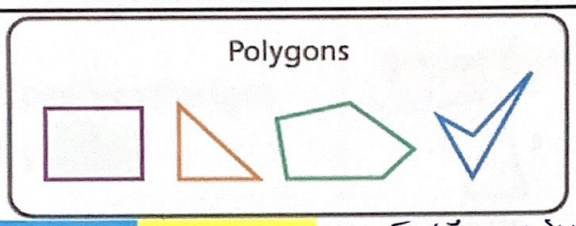
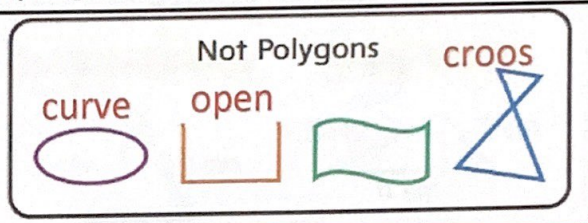
Ain Jaloot SCHOOL CHAPTER 12 .. (TERM 3) 7/5/2020

المدرسة الإماراتية

LESSON 1 .. Polygons

Outcomes: names of polygons + regular (congruent side and angle)





Regular polygons. ⇒ الأطوال متساوية

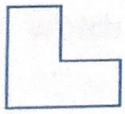
- **Congruent** sides
- **Congruent** angles

Polygon	Regular	Not Regular	Number of Sides
Triangle			3
Quadrilateral			4
Pentagon			5
Hexagon			6
Octagon			8

Q1 : Name each polygon and Determined regular or not regular:


hexagon , regular

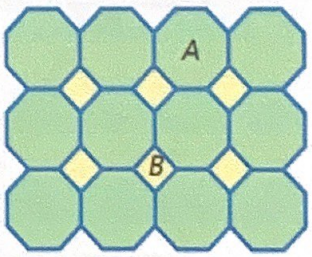

triangle , not regular


hexagon, not regular

Q2 : problem solving :

A: Octagon

1. What polygon make up the design ? B: Quadrilateral
2. Describe polygon B as regular or not regular ? regular
3. How many sides in polygon A ? 8 sides

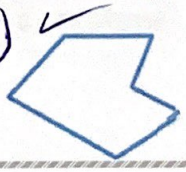


Test Practice

10. Which of the following figures is a polygon?

Ⓐ curve X 

Ⓑ curve X 

Ⓒ ✓ 

Ⓓ croos X 

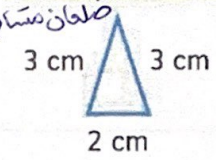
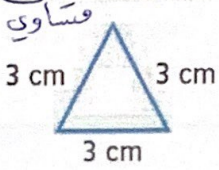
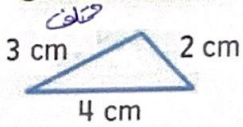
Ain Jaloot SCHOOL CHAPTER 12 .. (TERM 3) 11/5/2020

LESSON 3 .. Classify triangle

Outcomes: classify tringle by sides .... By angles

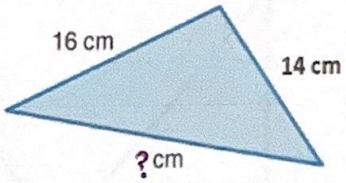
Classify triangle by sides

تصنيف المثلثات على حسب أطوال الأضلاع

Isosceles Triangle	Equilateral Triangle	Scalene Triangle
ضلعان متساويان	متساوي	مختلف
		
at least two sides congruent	all sides congruent	no sides congruent

Choose the correct answer :

1. The figure shows a scalene triangle .. The length = ?

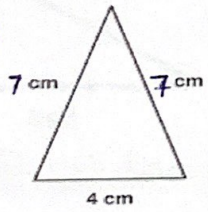


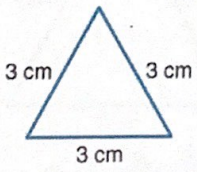
a. 16 cm b. 14 cm c. 23 cm

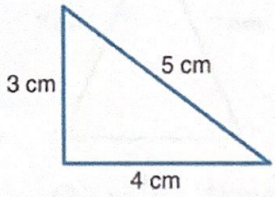
2. Which is an equilateral triangle ?

a. 2m , 2m , 5m b. 5m , 5m , 5m c. 2m , 5m , 5m

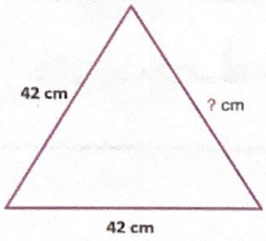
3. Which of following is an isosceles triangle ?

a. 

b. 

c. 

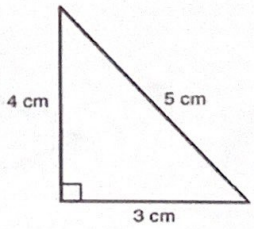
4. The figure shows a scalene triangle .. The length = ?



a. 40 cm b. 42 cm c. 45 cm

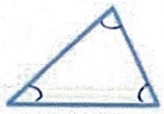
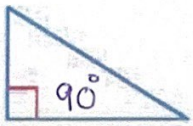
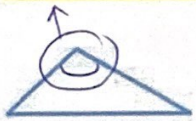
5. Name of this triangle ?

a. equilateral b. isosceles c. scalene



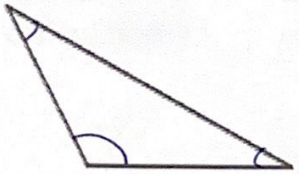
Classify triangle by angles

تصنيف المثلثات على حسب الزوايا

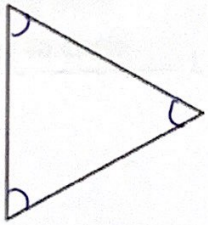
Acute Triangle	Right Triangle	Obtuse Triangle
		
3 acute angles	1 right angle, 2 acute angles	1 obtuse angle, 2 acute angles

Classify the triangle by sangles :

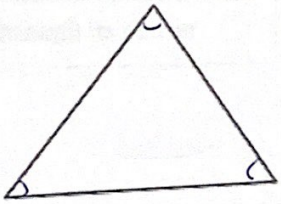
(A cute triangle , right triangle , obtuse triangle)



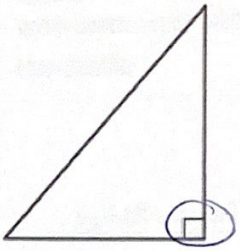
...obtuse...



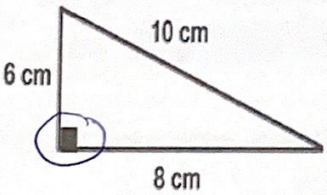
...acute...



...acute...

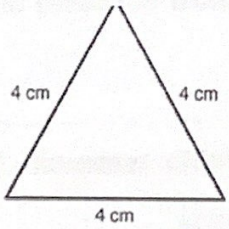


...right...



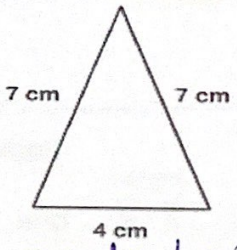
...Right triangle

...scalene triangle



...acute triangle

equilateral triangle



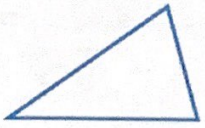
...acute triangle

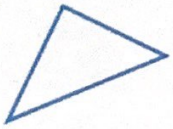
isosceles triangle

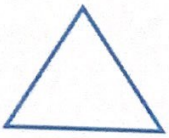
Test Practice

8. Which of the following figures is an obtuse triangle?

Ⓐ 

Ⓑ 

Ⓒ 

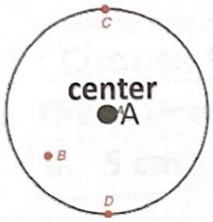
Ⓓ 

Ain Jaloot SCHOOL CHAPTER 12 .. (TERM 3) 14/5/2020

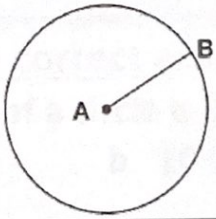
LESSON 4 .. Circles

Outcomes: identify parts of circle

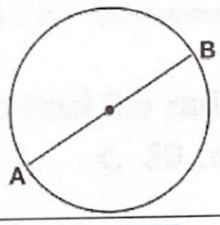
Part of circle أجزاء الدائرة



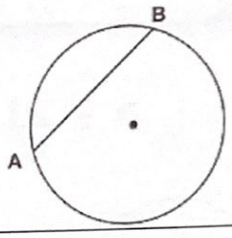
The point in the middle of the circle (center)



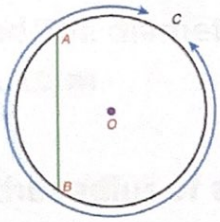
radius (r) the distance from center to circle



diameter (d) distance across a circle through its center



chord the line segment with both endpoints in the circle



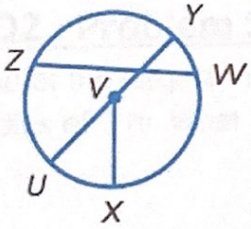
The distance around the circle (circumference)

تعريف الدائرة :

A circle is the set of all points in a plane that are the same distance from a point called the center.

For each circle, identify the radii, diameter, chords, and center.

1.



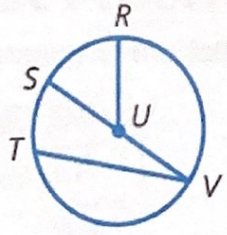
(r) radii: $\overline{VX}$ $\overline{VU}$ and $\overline{VY}$

(d) diameter: $\overline{UY}$

chord: $\overline{ZW}$ or $\overline{UY}$.

center: V

2.



radii: $\overline{UR}$ $\overline{US}$ or $\overline{UV}$

diameter: $\overline{SV}$

chord: $\overline{TV}$ or $\overline{SV}$.

center: U.

Words	The diameter d of a circle is twice the radius r. The radius r of a circle is half of its diameter d.
Symbols	$d = 2r$ $\quad r = \frac{d}{2}$

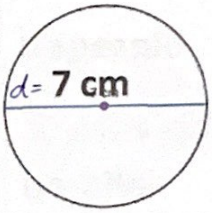
Q1 : Choose the correct answer :

1. **The diameter of a circle is 10 cm. Find the radius** $\frac{10}{2} = 5$

   a. 5 cm **b. 10 cm** **c. 20 cm**

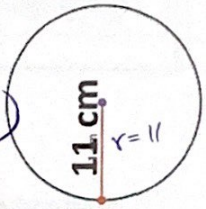
2. **Find the radius ..** $\frac{7}{2} = 3.5$

   a. 2 cm **b. 7 cm** **c. 3.5 cm**



3. **Find The diameter ..** $11 + 11 = 22$

   a. 10 m **b. 11 cm** **c. 22 cm**



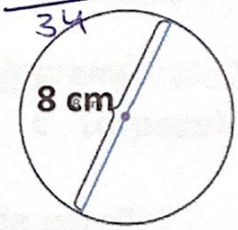
4. **If the radius of a circle is 17 m. then the diameter**

   a. 8.5 m **b. 34 cm** **c. 40 cm**

① 17
17
34

5. **Find the radius ..** $\frac{8}{2} = 4$

   a. 4 cm **b. 16 cm** **c. 2 cm**



Q2 : Problem Solving

One of the largest mining dump trucks has tires with a radius of 2 m. What is the diameter of each tire?

$2 + 2 = 4$ m

The diameter of a tree is 24 cm. What is the radius of the tree? $r = \frac{24}{2} = 12$ cm

Test Practice

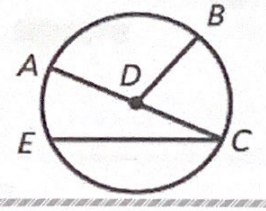
11. Which of the following is NOT a radius of the circle shown?

Ⓐ $\overline{DB}$

Ⓑ $\overline{CE}$ Chord

Ⓒ $\overline{AD}$

Ⓓ $\overline{BD}$

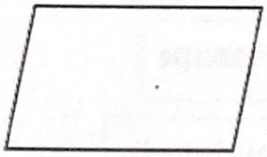


Ain Jaloot SCHOOL CHAPTER 12 .. (TERM 3) 21/5/2020

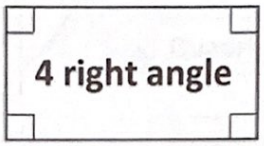
LESSON 6 .. CLASSIFY Quadrilaterals (4 sides)

Outcomes: parallel side, congruent sides , right angle

Parallelogram with 2 pairs sides parallel



Parallelogram



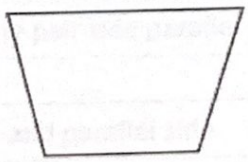
rectangle

2 pairs sides Congruent

square

rhombus

4 sides Congruent



trapezoid

1 pairs sides parallel

Q1 : Choose the correct answer :

1. Quadrilaterals that have all the attributes of rhombus
   a. rectangle b. parallelogram c. square

2. Quadrilaterals that have all the attributes of parallelogram(circle 2)
   a. rectangle b. rhombus c. trapezoid

3. Quadrilateral has no congruent side and one pair side parallel ..
   a. parallelogram b. trapezoid c. square

4. Quadrilaterals that have all the attributes of rectangle (circle 2)
   a. Trapezoid b. parallelogram c. rhombus

5. parallelogram has 4 congruent side and 4 right angles ..
   b. rectangle b. trapezoid c. square

6. parallelogram has 4 congruent side and no right angles ..
   c. rhombus b. square c. trapezoid

Q2 : Match :

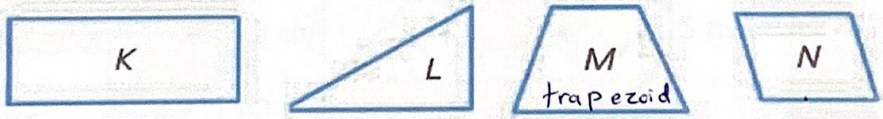
Parallelogram	Quadrilateral has 4 congruent side , 4 right angle
trapezoid	Quadrilateral has no congruent side, one pair side parallel
square	Quadrilateral has 2 pair congruent side and parallel side
rhombus	Quadrilateral has 2 pair congruent side, 4 right angle
rectangle	Parallelogram has 4 congruent side , no right angle

Q3 : Write my name :

1. I have 4 right angle ..... (square) rhombus)
2. I have one pairs of parallel side..... (square) trapezoid)
3. I have 4 congruent side I'm not square, ... (rhombus), rectangle)
4. Rectangle is a Parallelogram with ..... right angle (2 , 4)

Test Practice

11. Which statement about the figures shown below is true?



Ⓐ Figures *K* and *N* are rectangles.

Ⓑ Figures *L* and *N* are quadrilaterals.

Ⓒ Figures *K* and *N* are parallelograms.

Ⓓ Figures *M* and *N* are parallelograms.

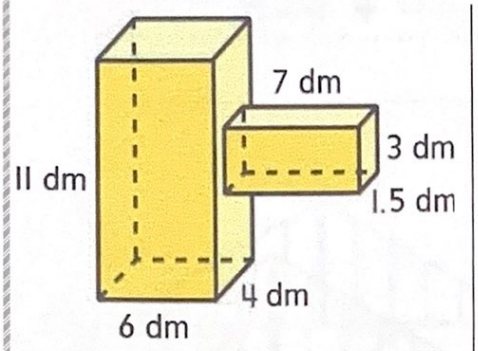
Ain Jaloot SCHOOL CHAPTER 12 .. (TERM 3) 4/6/2020

LESSON 12 .. VOLUME OF composite figures

V = L x w x h  V = B x h

L: length w: width h: height b: base (l x w)

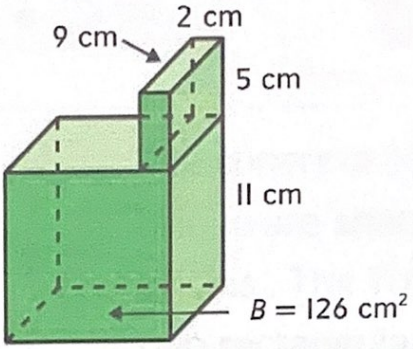
Q1 : Find the volume of composite figures :



$V = 11 \times 6 \times 4 = 264\ dm^3$

$V = 7 \times 3 \times 1.5 = 31.5\ dm^3$

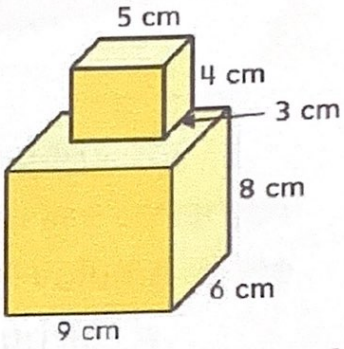
$264 + 31.5 = \boxed{295.5\ dm^3}$



$V = 9 \times 2 \times 5 = 90\ cm^3$

$V = 126 \times 11 = 1386\ cm^3$

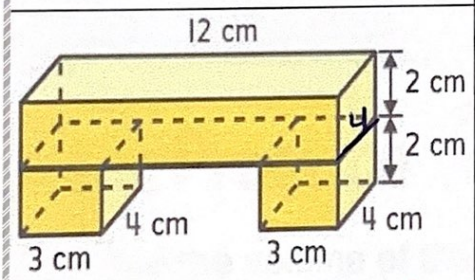
$90 + 1386 = \boxed{1476\ cm^3}$



$V = 5 \times 4 \times 3 = 60\ cm^3$

$V = 9 \times 6 \times 8 = 432\ cm^3$

$60 + 432 = \boxed{492\ cm^3}$

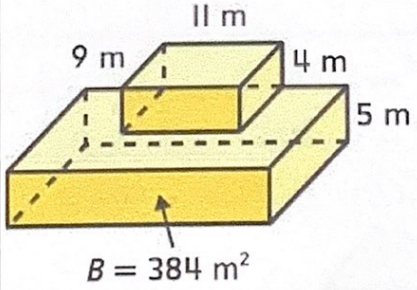


$V = 3 \times 4 \times 2 = 24\ cm^3$

$V = 3 \times 4 \times 2 = 24\ cm^3$

$V = 12 \times 2 \times 4 = 96\ cm^3$

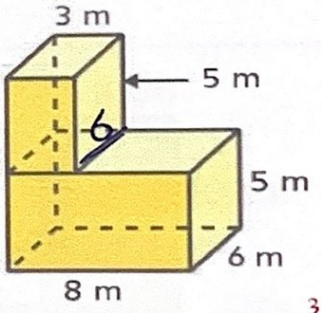
$24 + 24 + 96 = \boxed{144\ cm^3}$



$V = 9 \times 11 \times 4 = 396\ m^3$

$V = 384 \times 5 = 1920\ m^3$

$396 + 1920 = \boxed{2316\ cm^3}$



$V = 8 \times 6 \times 5 = 240\ m^3$

$V = 3 \times 5 \times 6 = 90\ m^3$

$240 + 90 = \boxed{330\ m^3}$

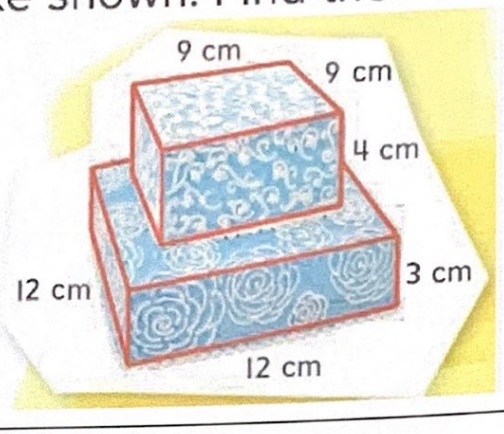
Q2 : Problem Solving

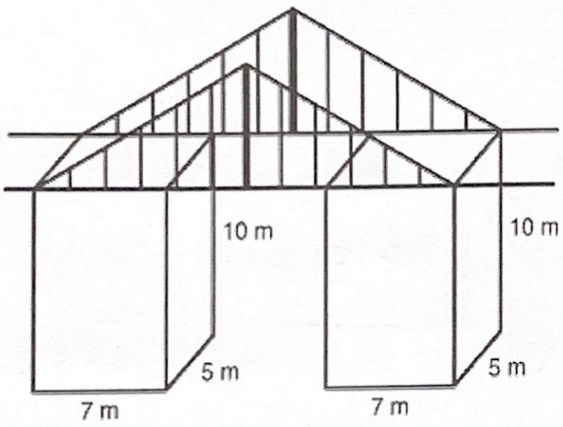
Sumayya is decorating the cake shown. Find the volume of the cake.

$V = 9 \times 9 \times 4 = 324\ cm^3$

$V = 12 \times 12 \times 3 = 432\ cm^3$

$324 + 432 = \boxed{756\ cm^3}$





The concrete supports of a bridge are shaped like congruent prisms . The Total volume of the two rectangular prisms is

$V = 10 \times 5 \times 7 = 350\ cm^3$

$V = 10 \times 5 \times 7 = 350\ cm^3$

$350 + 350 = \boxed{700\ cm^3}$

Test Practice

$V = 25 \times 9 \times 12 = 2700\ cm^3$

$V = 8 \times 10 \times 9 = 720\ cm^3$

$2700 + 720 = \boxed{3420}$

22. Find the volume of the composite figure.

Ⓐ 2,700 cm^3

Ⓑ 2,780 cm^3

✓ Ⓒ 3,420 cm^3

Ⓓ 3,660 cm^3