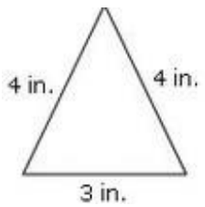
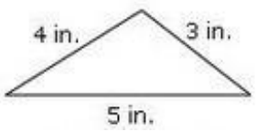
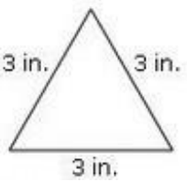
Unit V Properties of

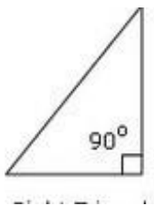
Figures

1 Identify each type of triangle below:



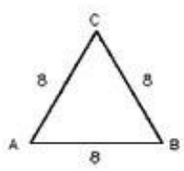



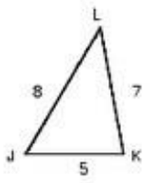



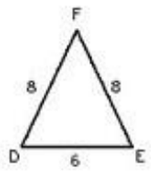



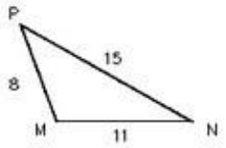

_____ _____ _____ _____

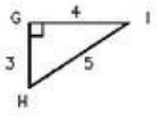
2 Identify the type of triangle drawn and indicate which angles are equal. Be careful some triangles do not have equal angles at all.

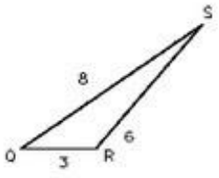


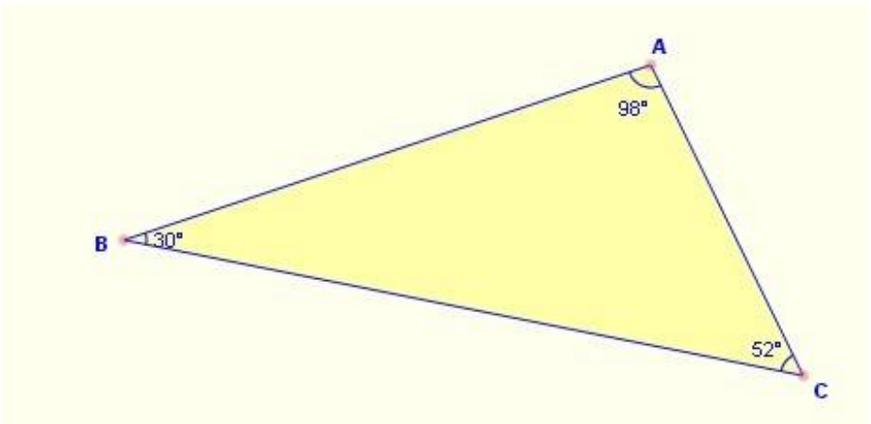




3 In the triangles below, the measure of each angle is given. Identify which angles are obtuse and which angles are acute. Identify the type of triangle as well

A

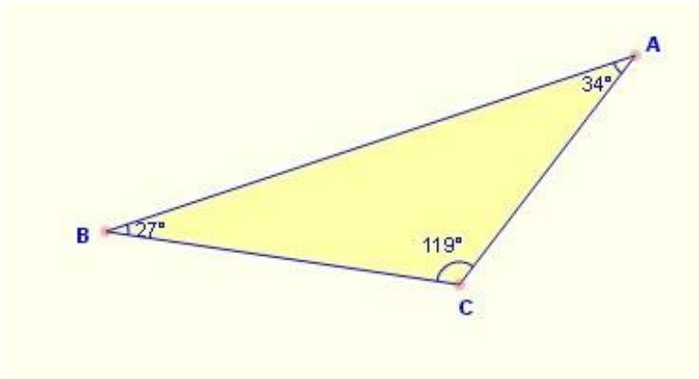



Type of Angle(s): Type of Triangle=_____

∠A _____

∠B_____

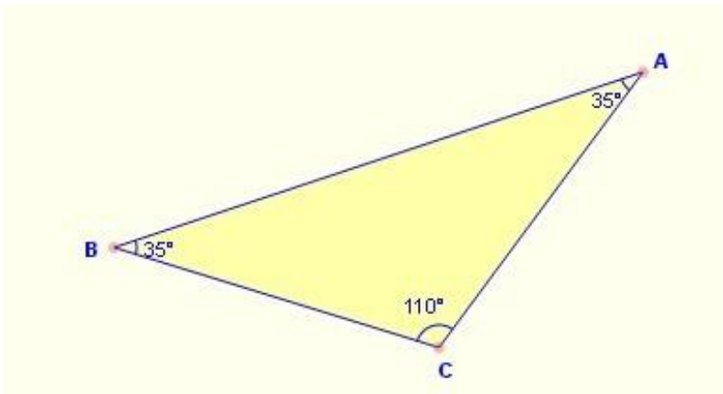
∠C_____ B




Type of Angle(s): Type of Triangle=_____

∠A _____
∠B_____
∠C_____

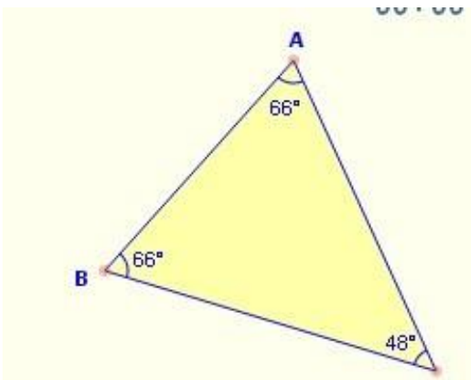
C




Type of Angle(s): Type of Triangle=_____

∠A _____
∠B_____
∠C_____

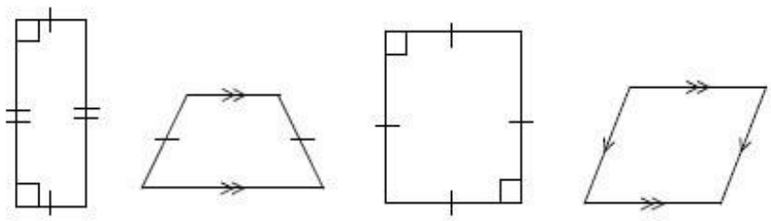
D)




Type of Angle(s): Type of Triangle=_____

∠A _____
∠B_____
∠C_____ 4 Identify the

types of quadrilaterals below.
Indicate which angles are equal.



A) _____ B) _____ C)_____ D) _____

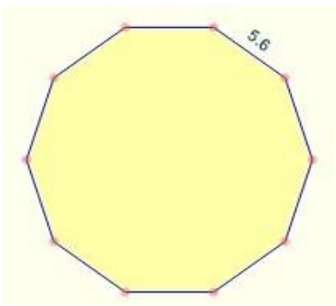
5 Using the formulas

$$Interior\ Angle\ Sum = (n-2)180^\circ \quad where\ n\ is\ the\ number\ of\ sides\ in\ the\ polygon$$

$$Each\ Interior\ Angle = \frac{(n-2)180^\circ}{n}$$

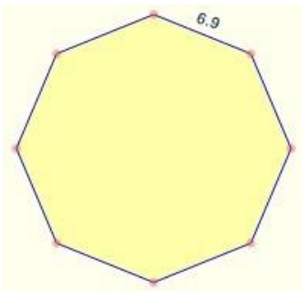
answer the questions below: [SHOW ALL WORKINGS!} Confirm able measures with a protractor.

A) I) Total Interior Angle Sum =



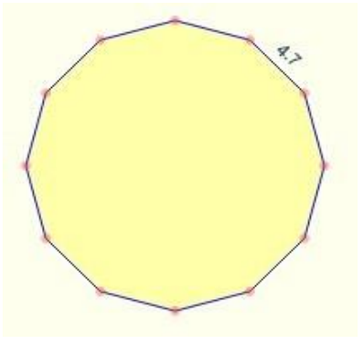

II) Each Interior Angle Measures=

B) I) Total Interior Angle Sum =




II) Each Interior Angle Measures=

C) I) Total Interior Angle Sum:




II) Each Interior Angle:

6 Can the sides fit the sides of a triangle? Please explain why or why not. Keep in mind the following properties:

- The side opposite the largest angle is the longest side.
- The side opposite the smallest angle is the smallest side.
- The sum of any two sides must be greater than the length of the third side.

A) 6, 6, 10 Yes or NO. Why or Why Not?

_____

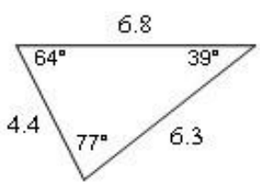
Type of Triangle =_____

B) 6, 19, 11

Yes or NO. Why or Why Not?

_____

Type of Triangle =_____



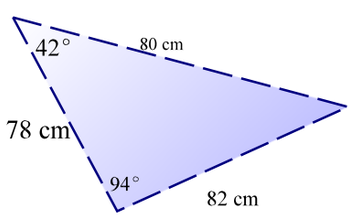

C)

Yes or NO. Why or Why Not?

_____

Type of Triangle =_____

D)



Yes or NO. Why or Why Not?

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Type of Triangle =_____

7 State which quadrilaterals have the following properties

A) all diagonals are equal and opposite sides are parallel

B) all diagonals are equal

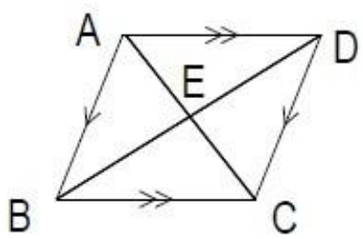
C) both set of opposite sides are parallel

D) one set of opposite sides are parallel

E) the diagonals bisect each other (intersect at the midpoint)

8 Determine the missing measure:

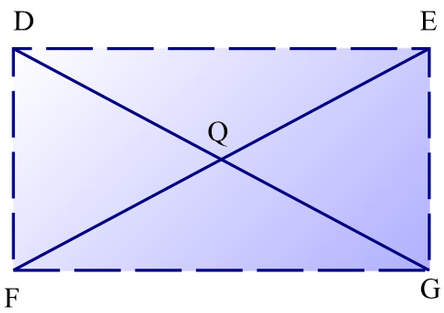
A)



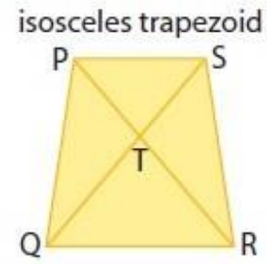

AD=8cm
BC= ?
AE=2cm
EC= ?

ED 5cm BD = ____cm

B) DE = 16, EG =12, EQ =10




DQ=
QG=
FQ=
DF=
FG=
DG=FE=




$SR = 4\text{ m}$ $PQ = \square\text{ m}$

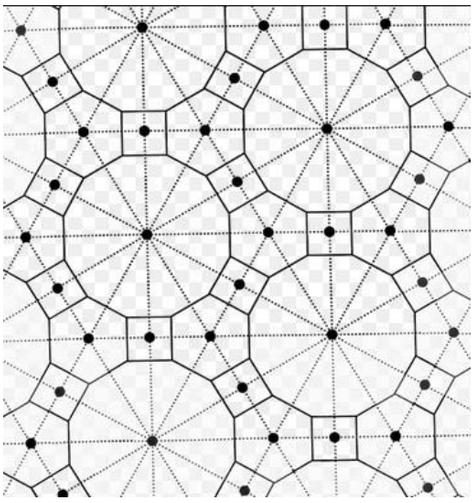
$\angle PTS = 85°$ $\angle QTR = \square°$

$\angle PTQ + \angle QTR + \angle RTS + \angle PTS = \square°$

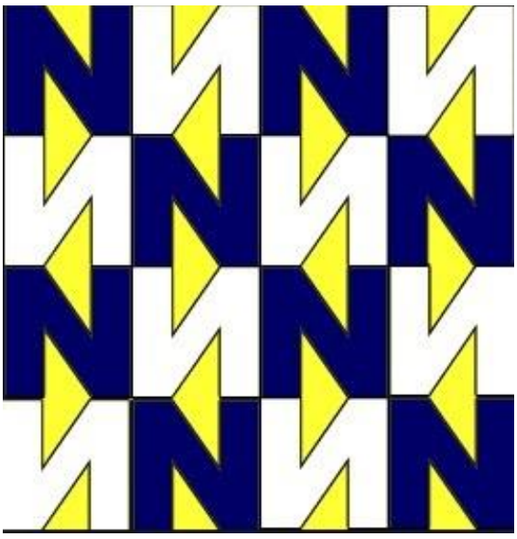
C)

9 Determine if each of the patterns are tessellations and explain how you know if they are or not. (USE A PROTRACTOR and measure each angle at a vertex and find the total sum....if its 360° it's a _____)

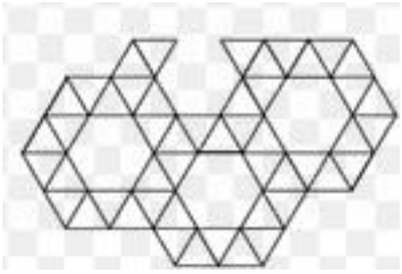
A)



B)



C)



10 Determine the number of the lines of symmetry in the following figures by drawing and labeling each line of symmetry (axis of symmetry). Place the answer under each figure.