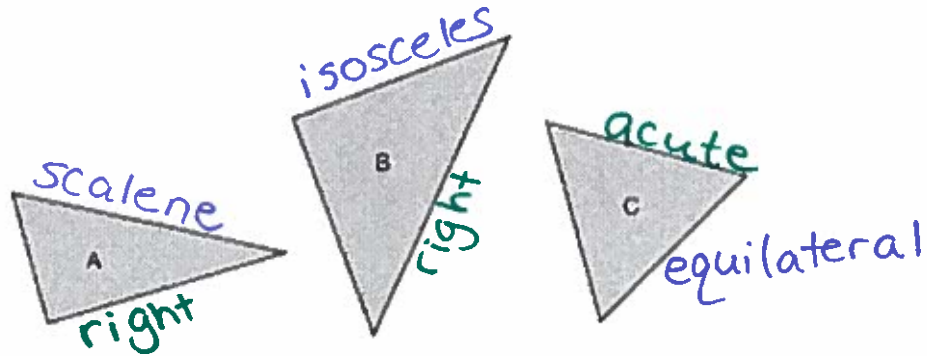


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Show What You Know – Geometry & Measurement

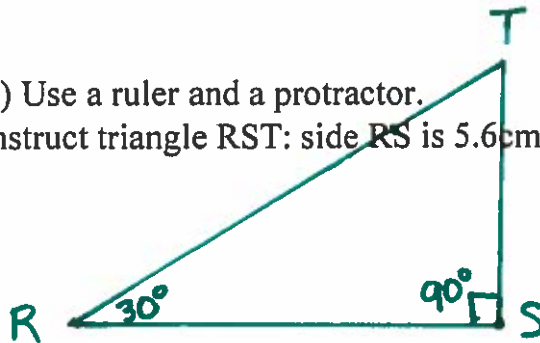
1. a) Name each triangle as scalene, isosceles, or equilateral.



- b) Rename each triangle as acute, obtuse, or right.

2. a) Use a ruler and a protractor.

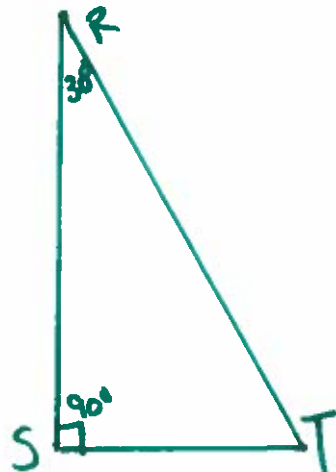
Construct triangle RST: side RS is 5.6cm, $\angle R$ is 30° , and $\angle S$ is 90° .



- b) What kind of triangle did you draw? How else can it be named?

Right Scalene

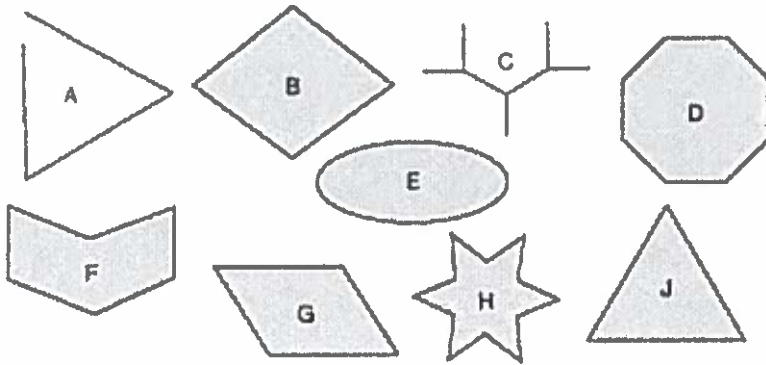
- c) Trace $\triangle RST$. Use the tracing to draw the triangle in a different orientation. Explain how you know they are congruent.



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3. a) Sort these shapes into sets of polygons and non-polygons.

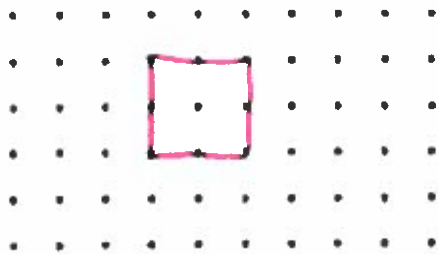


Polygons	Non Polygons
B	A C
D F	E
G H	
J	

b) Sort the polygons in part a into sets of regular and irregular polygons.

Regular	Irregular
D J	B F G H

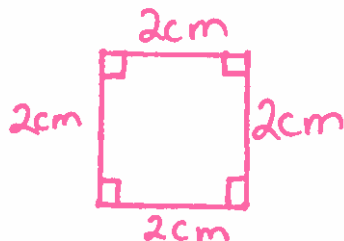
4. Draw a regular quadrilateral on square dot paper.



a) What shape did you draw?

Square

b) Use measuring and superimposing to show that all angles are congruent and all side are congruent. SHOW YOUR WORK



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5. a) The sushi platter pendant has the shape of a regular hexagon. The pendant has side length of 1.9 cm. Calculate the perimeter of the pendant. SHOW YOUR WORK

$$\begin{aligned} p &= 6 \times \text{side length} \\ &= 6 \times 1.9 \text{ cm} \\ &= 11.4 \text{ cm} \end{aligned}$$



b) Write the formula to find the perimeter of any regular hexagon.

$$\begin{aligned} p &= 6 \times \text{side length} \\ p &= 6s \end{aligned}$$

6. The flag of the Metis Nation in Saskatchewan is rectangular. Suppose it has length 3 m and width 1.5 m. What is the area of the flag?



$$\begin{aligned} a &= 3 \text{ m} \times 1.5 \text{ m} \\ &= 4.5 \text{ m}^2 \end{aligned}$$

7. The top of Toby's desk has length 68 cm and width 50 cm.
a) What is the area of the top of Toby's desk?



$$\begin{aligned} a &= 68 \text{ cm} \times 50 \text{ cm} \\ &= 3400 \text{ cm}^2 \end{aligned}$$

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b) Toby is working on a poster. The area of the poster is 2500 cm^2 .
Find 3 pairs of possible dimensions for the poster.

L	W	Area
25	100	2500
50	50	2500
125	20	2500

c) Do all of the dimensions you found fit on the desk? EXPLAIN

No \rightarrow only $50 \text{ cm} \times 50 \text{ cm}$

8. Estimate, then calculate, the volume of a rectangular prism with each set of dimensions.

a) length 21 cm, width 19 cm, height 8 cm

$$\begin{aligned} V &= L \times W \times H \\ &= 21 \text{ cm} \times 19 \text{ cm} \times 8 \text{ cm} \\ &= 3192 \text{ cm}^3 \end{aligned}$$

b) length 5 m, width 1.2 m, height 2 m

$$\begin{aligned} V &= L \times W \times H \\ &= 5 \text{ m} \times 1.2 \text{ m} \times 2 \text{ m} \\ &= 12 \text{ m}^3 \end{aligned}$$