



DEPARTMENT OF MATHEMATICS

GRADES 4 TO 12

TERM-1, ACADEMIC YEAR 2017 – 18

Worksheet No.	3	Topic	Shapes & Mathematical Drawings		
Grade	7	Section	A - J	Date	24/11/2017
Student Name					

1. Are these triangles congruent? Say which test you have used.

a)

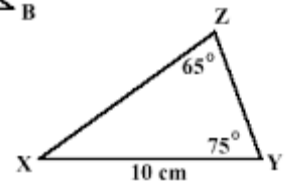
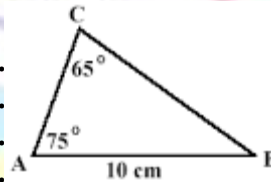
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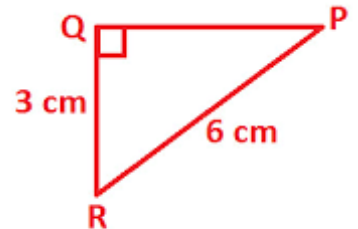
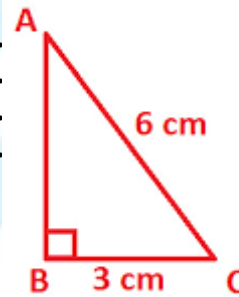
b).....

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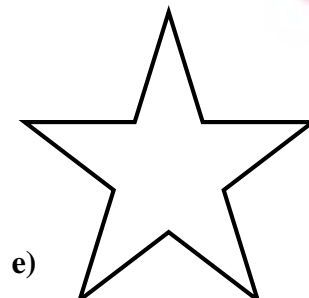
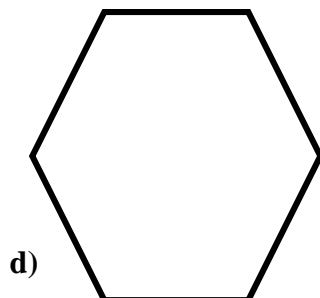
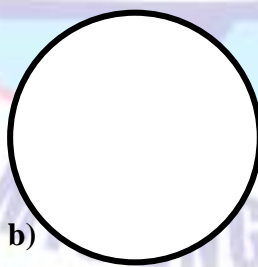
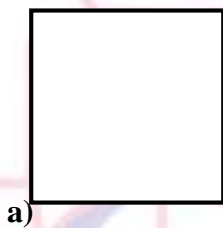
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2.) How many lines of symmetry does each figure have? Draw the symmetry lines.





3. Using ruler and compass only, construct the following triangle ABC & XYZ with:

a) $AB = 7$ cm ; $BC = 8$ cm ; $AC = 12$ cm.

b) $XY = 8$ cm ; Hypotenuse $XZ = 10$ cm ; angle $XYZ = 90^\circ$



**Answers :**

1. a) In $\triangle ABC$ and $\triangle XYZ$,
angles $\rightarrow C = Z$
angles $\rightarrow A = Y$
side $\rightarrow AB = XZ$

Therefore, by **AAS** Congruency the triangles are congruent.

- b) In $\triangle ABC$ and $\triangle PQR$,
 90° angle $\rightarrow B = Q$
hypotenuse $\rightarrow AC = RP$
side $\rightarrow BC = QR$

Therefore, by **RHS** Congruency the triangles are congruent

2. The number of lines of symmetry are:

- a) four
- b) infinite
- c) one
- d) six
- e) five

- 3.) a) Refer to text book Pg 37, 38 and follow the steps given in Example 1
b) Refer to text book Pg 38, 39 and follow the steps given in Example 2