
	<b>INDIAN SCHOOL AL WADI AL KABIR</b>	
<b>Class: XI</b>	<b>Department: SCIENCE – 2021-2022</b> <b>SUBJECT: <u>ENGINEERING GRAPHICS</u></b>	<b>Date of Completion:</b> <b>06.06.21</b>
<b>Worksheet No:1</b> <b>With Answers</b>	<b>Topic: RECTILINEAR FIGURES</b>	<b>Note: A4 FILE</b> <b>FORMAT</b>
<b>NAME OF THE STUDENT:</b>	<b>CLASS: XI</b> <b>SECTION:C</b>	<b>ROLL NO:</b>

1. Divide a straight-line AB, proportionate to seven equal parts.
  
2. Construct a Right-angled Triangle ABC, having its hypotenuse AC = 60 mm and altitude AB = 40 mm.
  
3. Construct an Isosceles Triangle QPR, having each of its sides = 50mm and base = 40 mm.
  
4. Construct an equilateral triangle Of 40 mm sides.
  
5. Construct a Triangle ABC, having its base BC=50mm, side AB=40mm, side AC=60mm.
  
6. Construct a rectangle ABCD having its base AB = 60 mm and its side AD = 40 mm.
  
7. Construct a Trapezion or Kite ABCD, having its diagonal AC=50mm, its adjacent sides AD and AB each equal to 30mm and CD and CB equal to 40mm.

8. Construct a regular pentagon with base side = 30 mm.

9. Construct a square of 50 mm sides.

10. Construct a regular hexagon on a base line of 40 mm.

### MULTIPLE CHOICE QUESTIONS

1. In Metric system the standard-length measure is -----

- a) Yard
- b) Meter
- c) Centimeter
- d) None of the above

2. Continuous thick line is used to denote -----

- a) Visible edges
- b) Axis line
- c) Leader line
- d) Projection line

3. The axis of a circle is denoted by which type of lines-----

- a) Continuous thick lines
- b) Centre line
- c) Continuous thin lines
- d) Double dashed lines

4. Mini drafter is a combination of -----

- a) Scale and compass
- b) compass and divider
- c) scale and protractor
- d) Protractor and compass

5. In an equilateral triangle all angles are equal to -----

- a) 45 degree
- b) 60 degree
- c) 90 degree
- d) None of the above

6. The size of a A2 drawing sheet is -----

- a) 841 x 1189
- b) 594 x 841
- c) 420 x 594
- d) 210 x 297

### **Answers – Multiple Choice Questions**

1.b) Meter

2.a) Visible edges

3.b) Centre lines

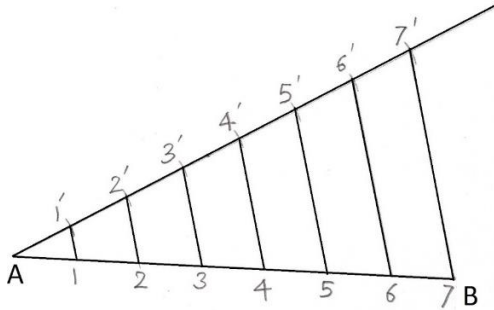
4.c) scale and protractor

5.b) 60 degree

6.c) 420 x 594

## Answers – Drawings with Hint points

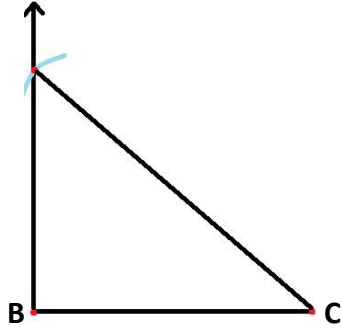
1.



(Hint: Using Copy angle method)

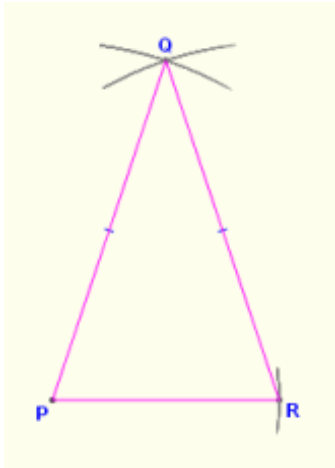
2.

A



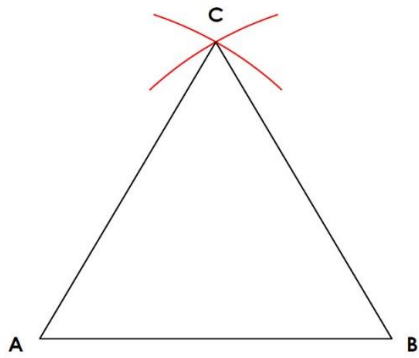
(Hint: construct perpendicular from B  $AB = 40$ ,  $AC = 60$ )

3.



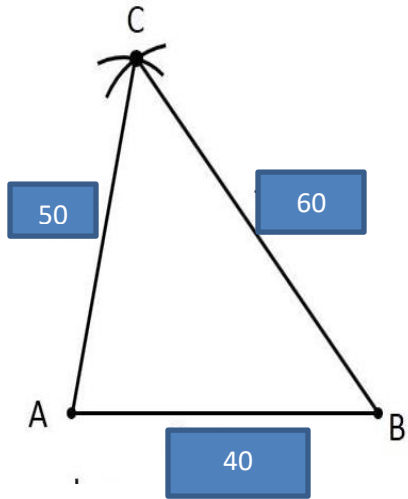
(Hint:  $QP = QR = 50 \text{ mm}$ ,  $PR = 40 \text{ mm}$ )

4.



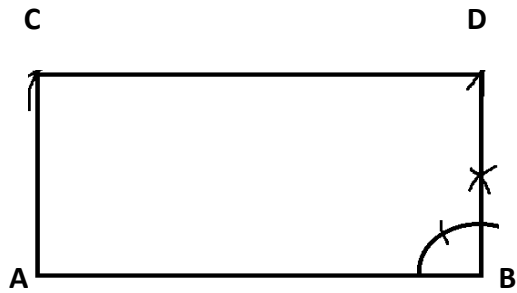
(Hint:  $CA = AB = CB = 40 \text{ mm}$ )

5.



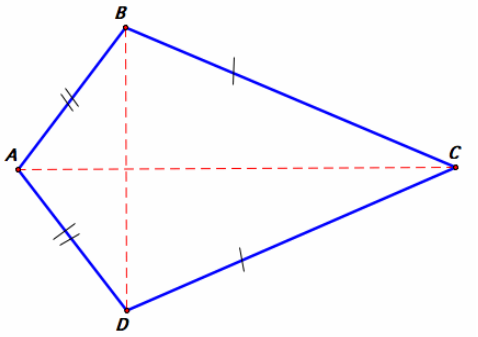
(Hint:  $AB = 40$ ,  $AC = 50$ ,  $BC = 60$ , using compass)

6.



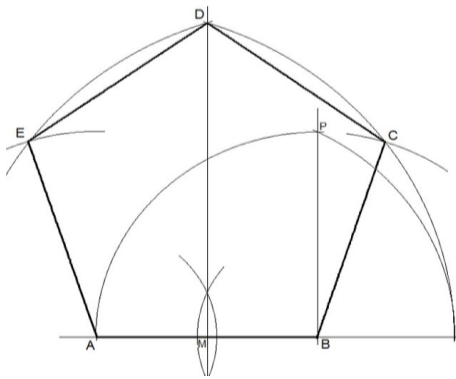
(Hint:  $AB = 60$ ,  $AD = 40$ , Construct perpendicular from both points A and B).

7.



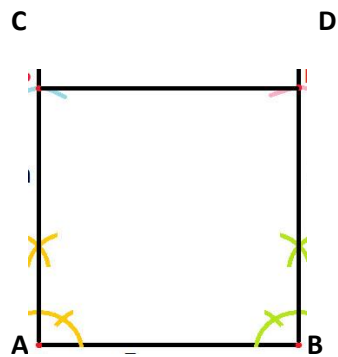
(Hint: Diagonal AC = 50, AB = AD = 30, CD = CB = 40mm)

8.



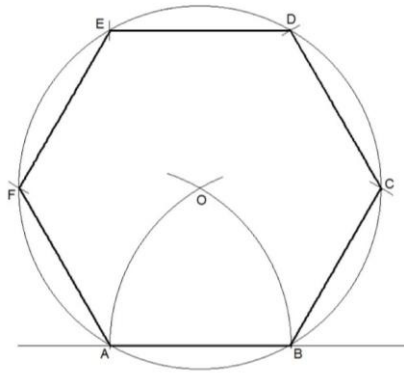
(Hint: Construct a regular pentagon on a base line AB = 30 mm ,using compass )

9.



(Hint: Construct perpendiculars from points A and B, take equal measurement of 40 mm and cut arcs to get a square).

10.



(Hint: On a base line cut arcs equally with 30 mm and draw a circle with center O and radius OA, cut arcs equally on the circle, join all points will get a hexagon).

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