
	INDIAN SCHOOL AL WADI AL KABIR	
Class: XII	Department: SCIENCE – 2022-2023 SUBJECT: <u>ENGINEERING GRAPHICS</u>	Date of Completion: 08.05.22
Worksheet No:1 With Answers	Topic: ISOMETRIC PROJECTION	Note: A4 FILE FORMAT
NAME OF THE STUDENT:	CLASS: XII SECTION:C	ROLL NO:

MULTIPLE CHOICE QUESTIONS

1. Isometric projection comes under which category of projections-----

- a) Axonometric projection
- b) Perspective projection
- c) Oblique projection
- d) None of the above

2. The angle difference between true scale and isometric scale is -----

- a) 30 degree
- b) 15 degree
- c) 45 degree
- d) None of the above

3. Which of the projection is mainly used in engineering practice -----

- a) Perspective projection

- b) Isometric projection
- c) Orthographic projection
- d) Oblique projection

4. In isometric projection all the three principal axes are inclined at an angle of -----

- a) 120 degree
- b) 45 degree
- c) 30 degree
- d) 60 degree

5. The isometric projection of a sphere is -----

- a) Ellipse
- b) circle
- c) Sphere
- d) None of the above

6. The isometric length is measured in isometric scale at an angle of -----

- a) 90 degree
- b) 45 degree
- c) 30 degree
- d) 20 degree

7. The true scale is measured in isometric scale at an angle of -----

- a) 15 degree

- b) 90 degree
- c) 45 degree
- d) 30 degree

8.The isometric projection of a circle is -----

- a) circle
- b) Sphere
- c)Ellipse
- d) None of the above

9.The isometric view is the drawings with -----

- a) Reduced scale
- b) Actual scale
- c) Vernier scale
- d) Isometric scale

10.Isometric projection is smaller than actual drawings up to the value -----

- a) 82 %
- b)90 %
- c)75%
- d)None of the above

WORKSHEET PRACTICE QUESTIONS

1. Draw the isometric projection of a cylinder of 75 mm and diameter of 50 mm resting on its base keeping the axis parallel to VP.

2. Draw an isometric projection of hemisphere resting centrally on its curved surface, on the top horizontal rectangular face of an equilateral triangular prism, keeping two triangular faces parallel to the VP. Side of equilateral triangle = 50mm, length of the prism = 70 mm and diameter of the hemisphere = 60 mm.

3. Draw the isometric projection of an equilateral triangular prism of 50 mm base side and 75 mm axis resting on its base in HP with one of its base edge parallel to VP in front.

4. Draw an Isometric Projection of 32 mm cube resting centrally on the top face of an equilateral triangular prism having 50 mm base side and height = 30 mm. One rectangular face of the prism is away from the observer and kept parallel to the V.P.

5. Draw the isometric projection of an inverted hexagonal pyramid of base edge 30 mm and height of 60 mm keeping two of its base side parallel to the VP.

6. Draw an Isometric Projection of a vertical regular pentagonal pyramid resting centrally, having one base edge away from the observer parallel to V.P., on top of a vertical cylinder. Side of the pentagon = 32 mm, height of pyramid = 50 mm, diameter of cylinder = 76 mm and height of cylinder = 40 mm.

7. Draw the isometric projection of cone of diameter 40 mm and axis of 60 mm resting on its base perpendicular to H.P.

8. Draw an Isometric Projection of a sphere resting centrally on a rectangular face of a horizontal hexagonal prism having its hexagonal ends perpendicular to V.P. Side of hexagon = 30 mm, length of the prism = 80 mm and diameter of sphere = 60 mm.

9. A Pentagonal prism of base side of 25 mm and axis length of 55 mm is resting on its face with its axis parallel to both H.P and V.P. Draw its isometric projection.

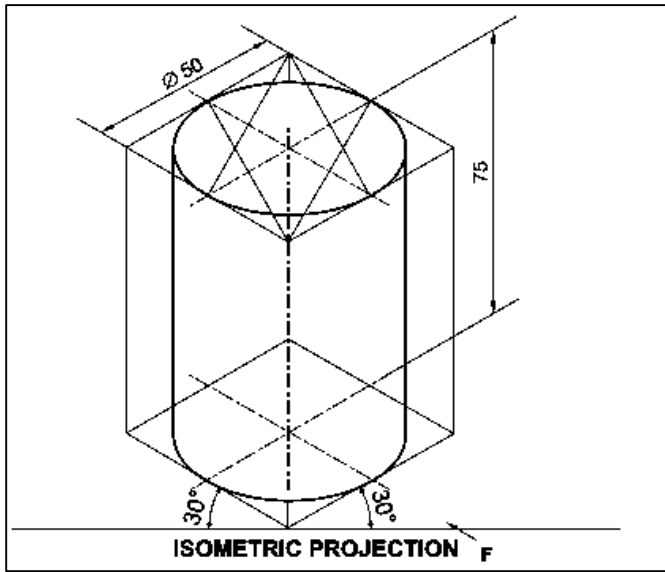
10. Draw an Isometric Projection of a vertical regular hexagonal pyramid resting vertically and centrally having two of its base edges perpendicular to V.P. On the top rectangular face of a horizontal square prism with its square ends perpendicular to V.P. Side of the square = 50 mm, length of the prism = 100 mm, side of the hexagon = 30 mm and height of the pyramid = 60 mm.

ANSWERS – MULTIPLE CHOICE QUESTIONS

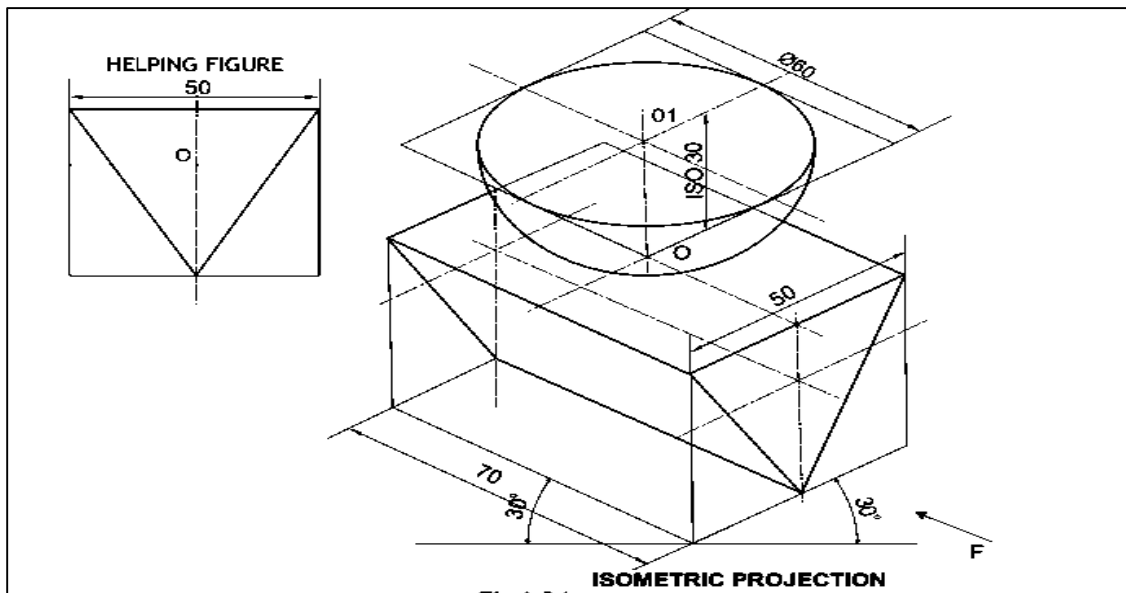
1. a) Axonometric projection
2. b) 15 degree
3. b) Isometric projection
4. a) 120 degree
5. b) Circle
6. c) 30 degree
7. c) 45 degree
8. c) Ellipse
9. b) Actual scale
10. a) 82%

SOLUTIONS FOR DRAWINGS

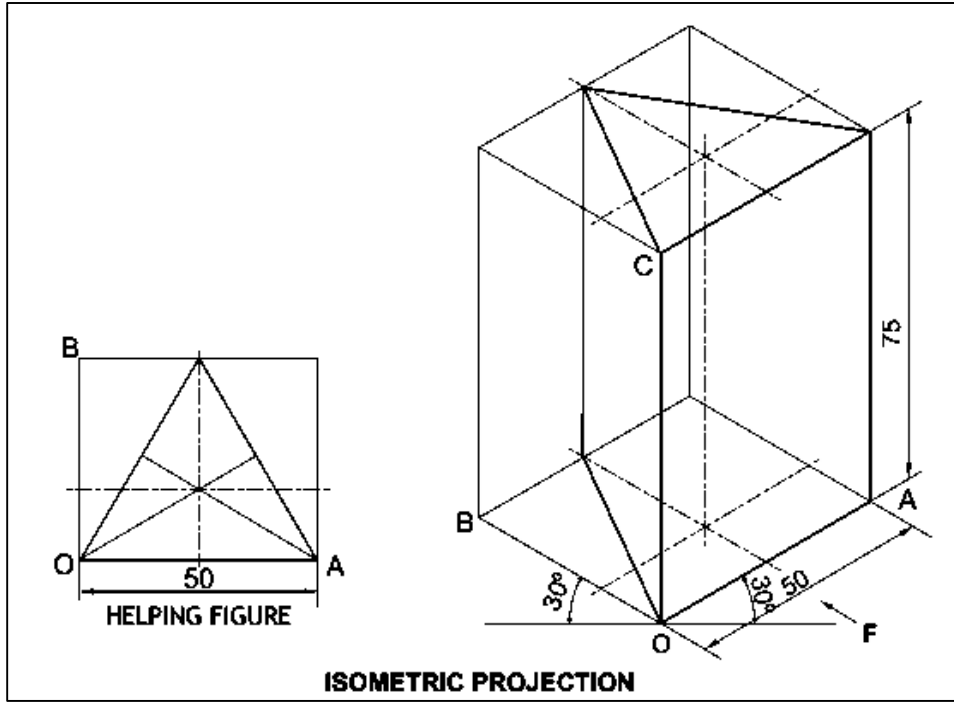
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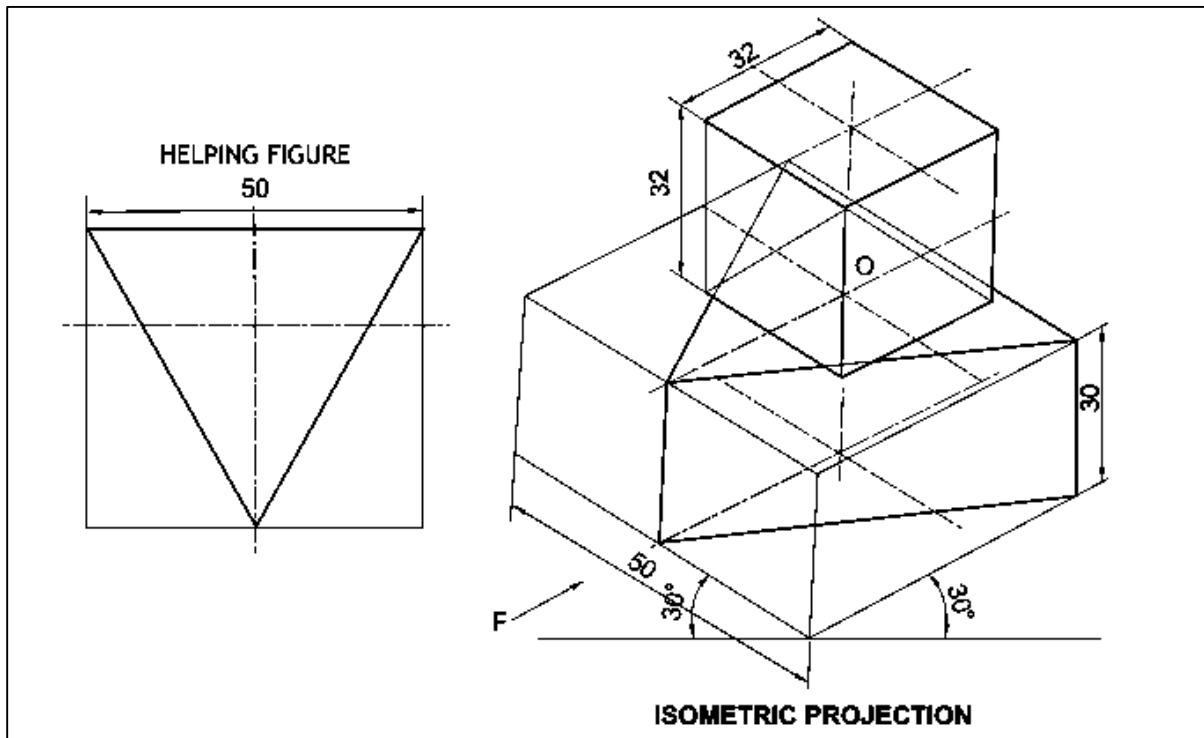
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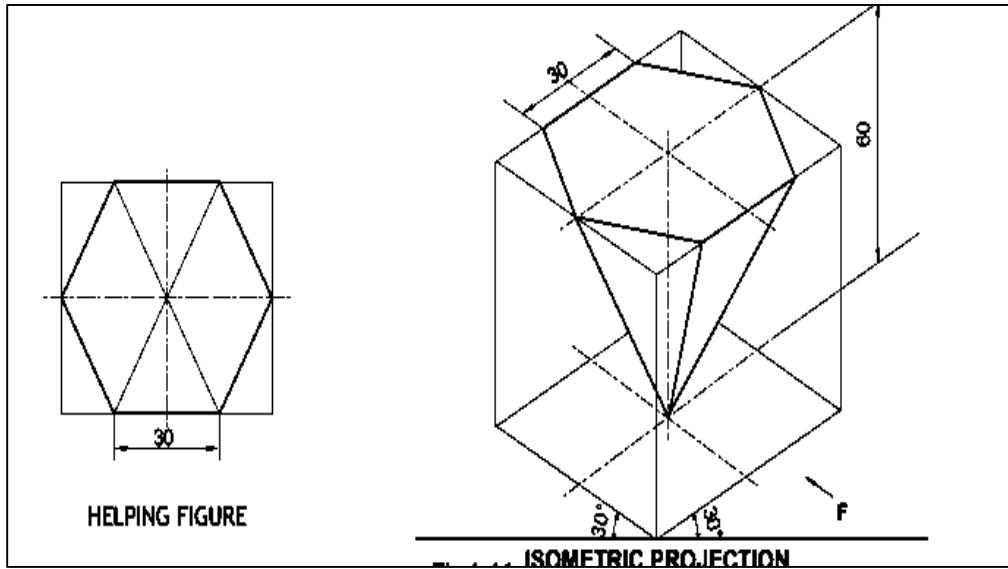
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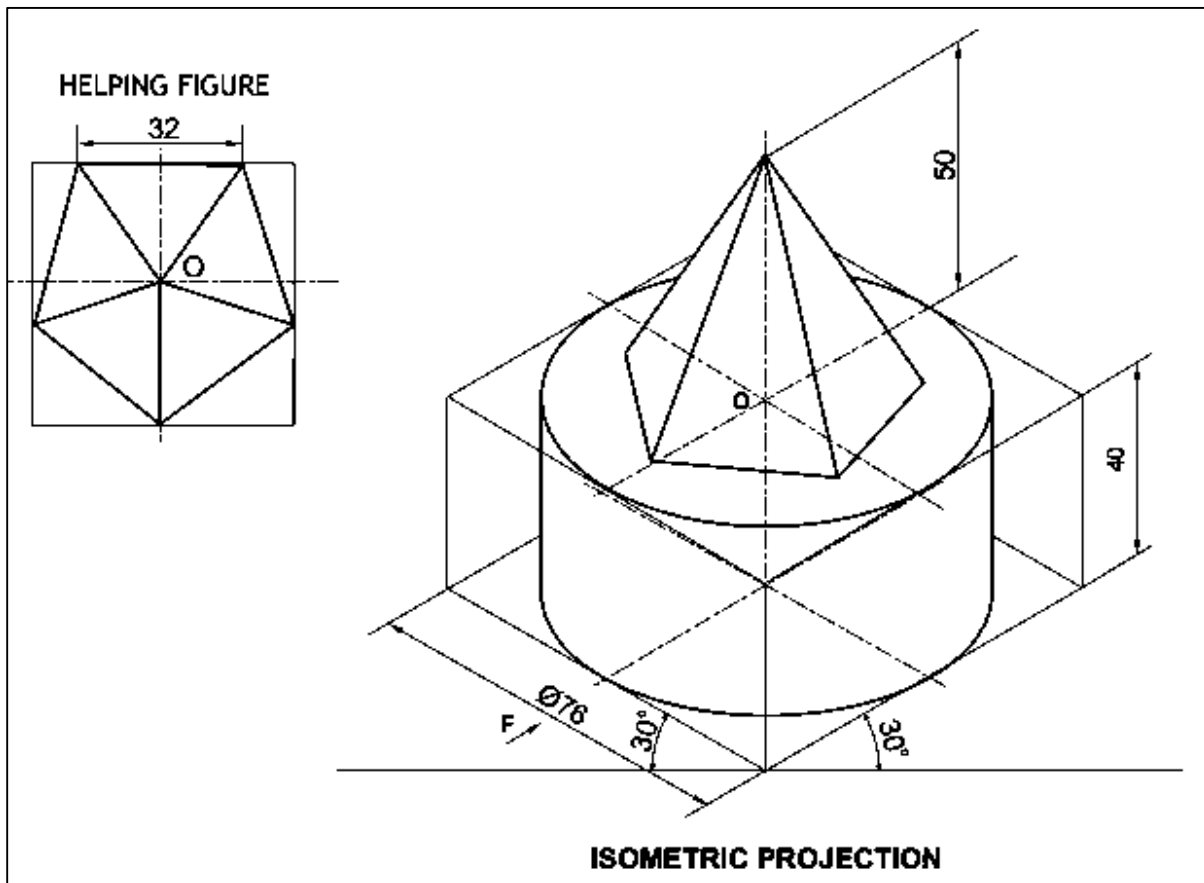
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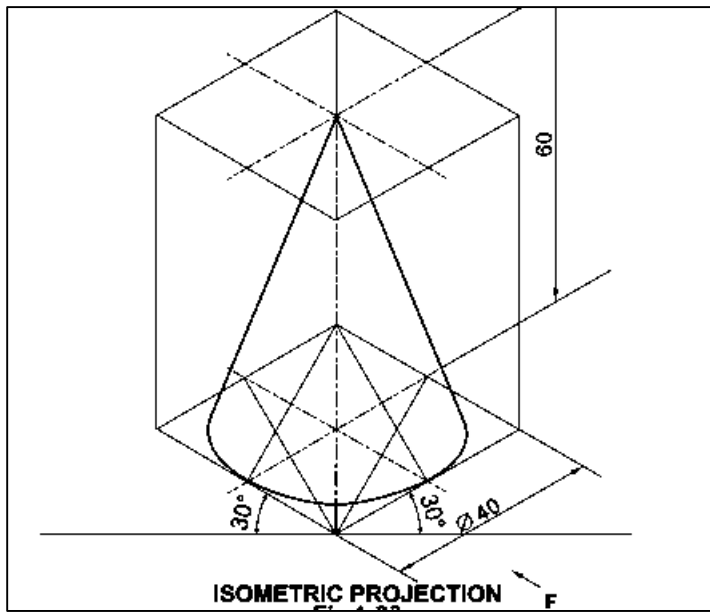
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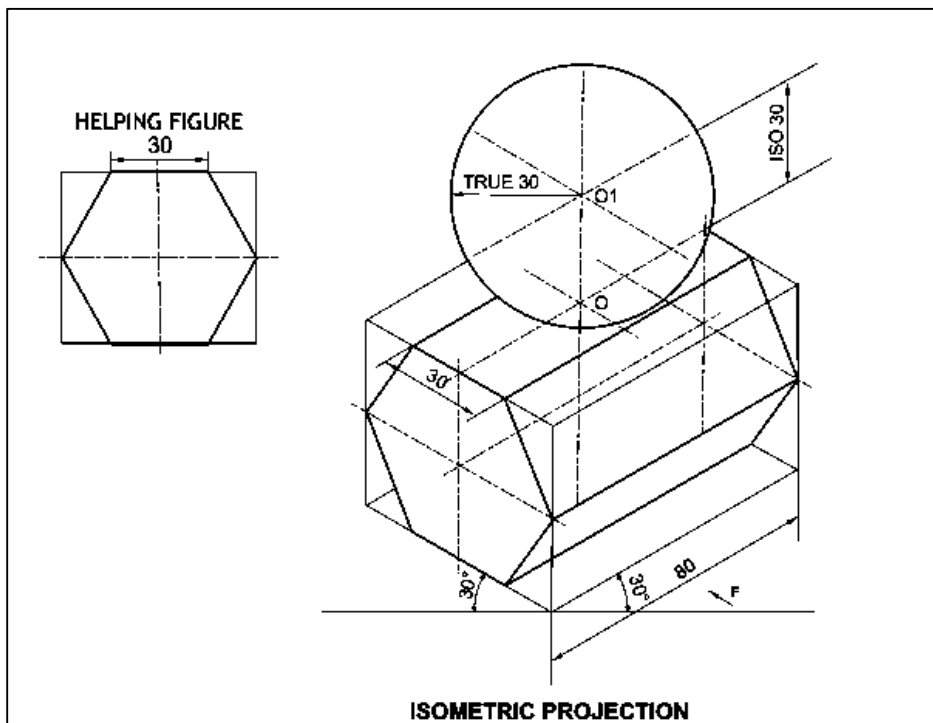
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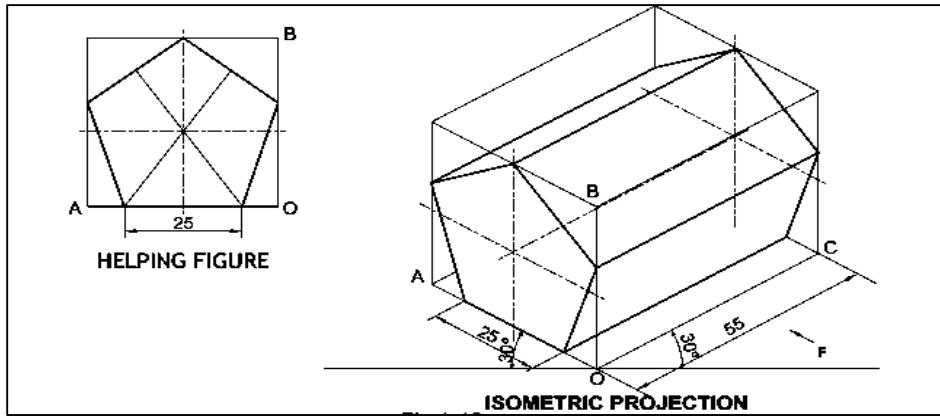
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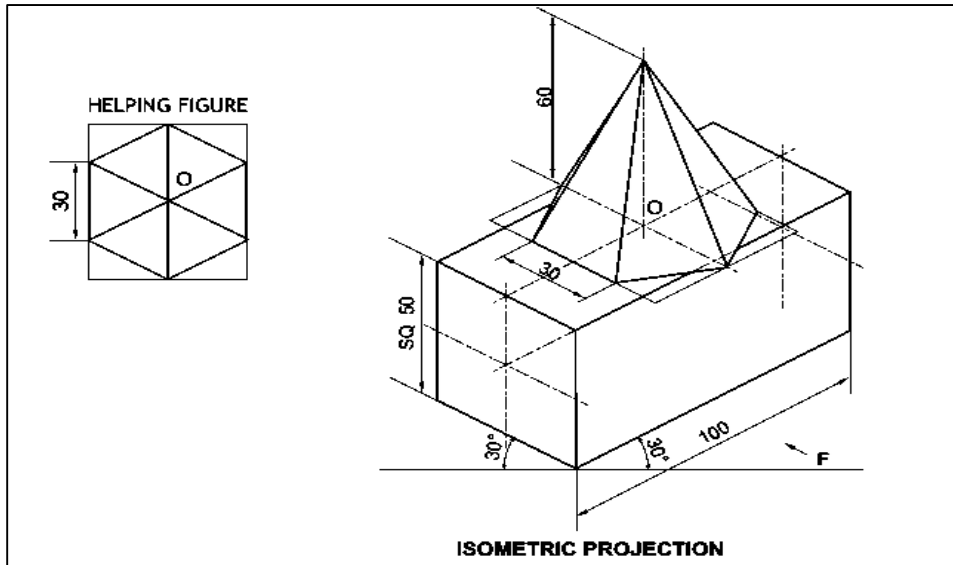
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9.



10.



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