Question 1. A scaled down Isometric View, a **full size** End Elevation and a Plan of a Wooden Toy Train are given. In the space indicated:

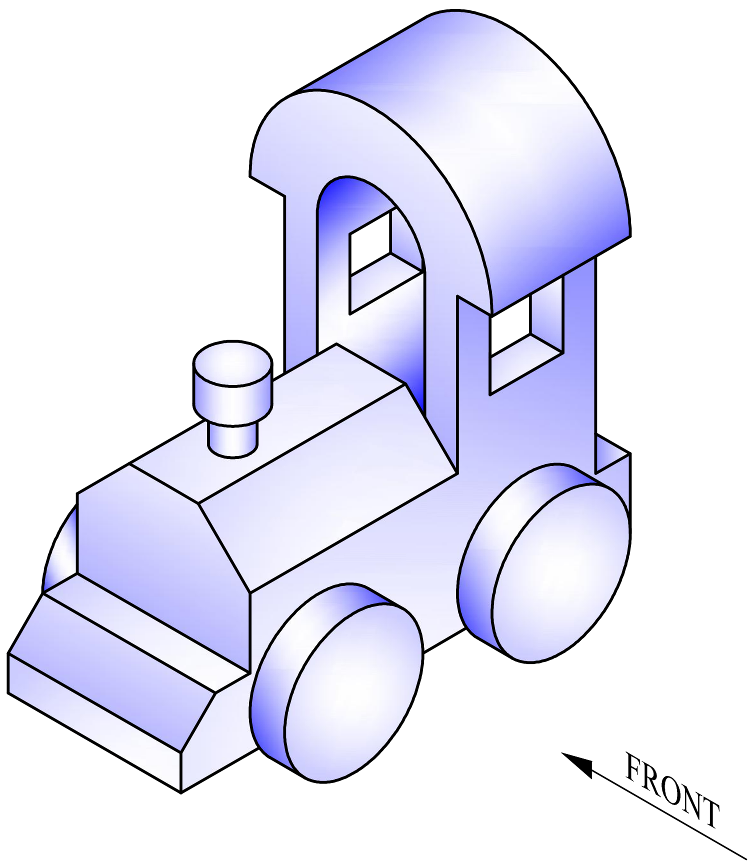
a) project the Front Elevation

b) print the scale used for the orthographic views

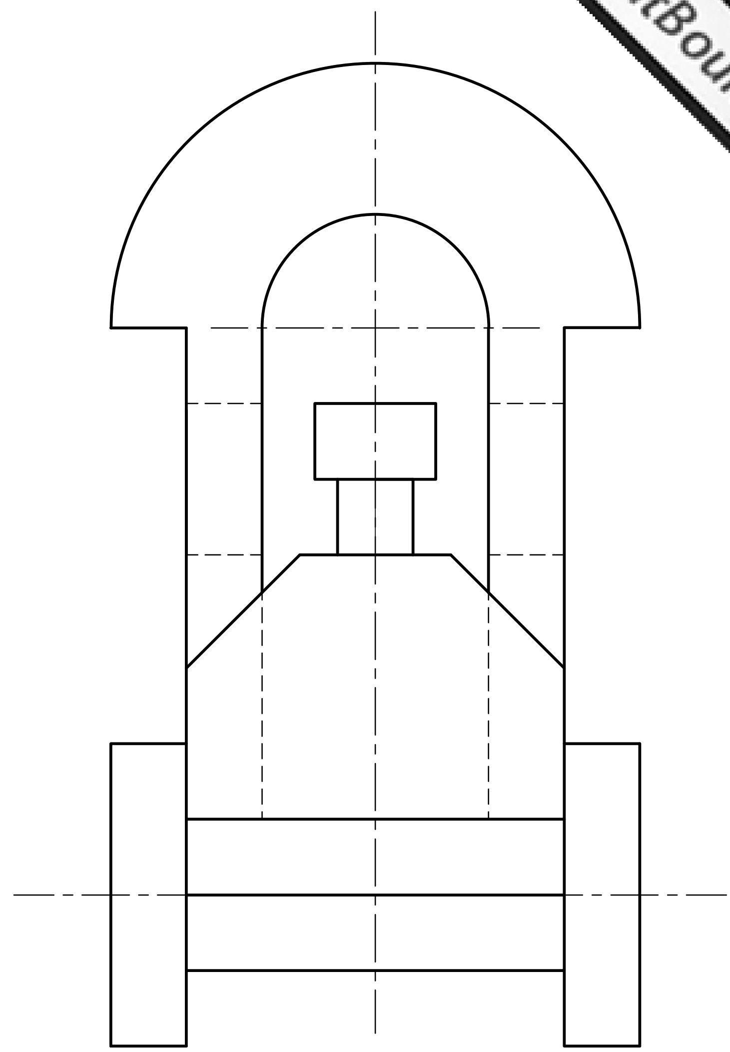
c) draw the symbol of the projection used

Note: Show all hidden details.

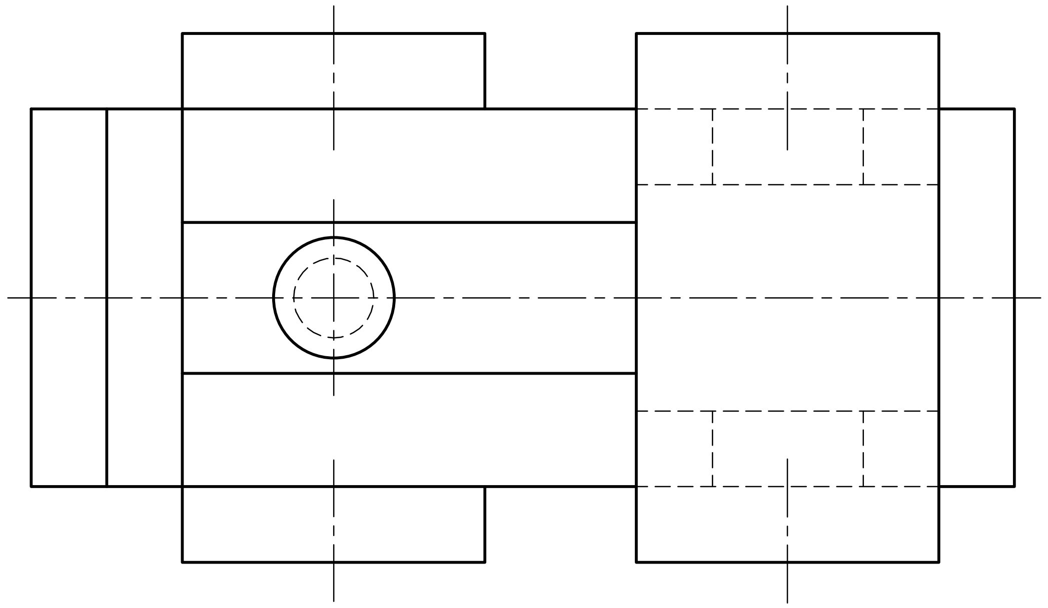
18 marks



FRONT ELEVATION



END ELEVATION



PLAN

SCALE ....

Projection Symbol

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GRAPHICAL COMMUNICATI

Class:

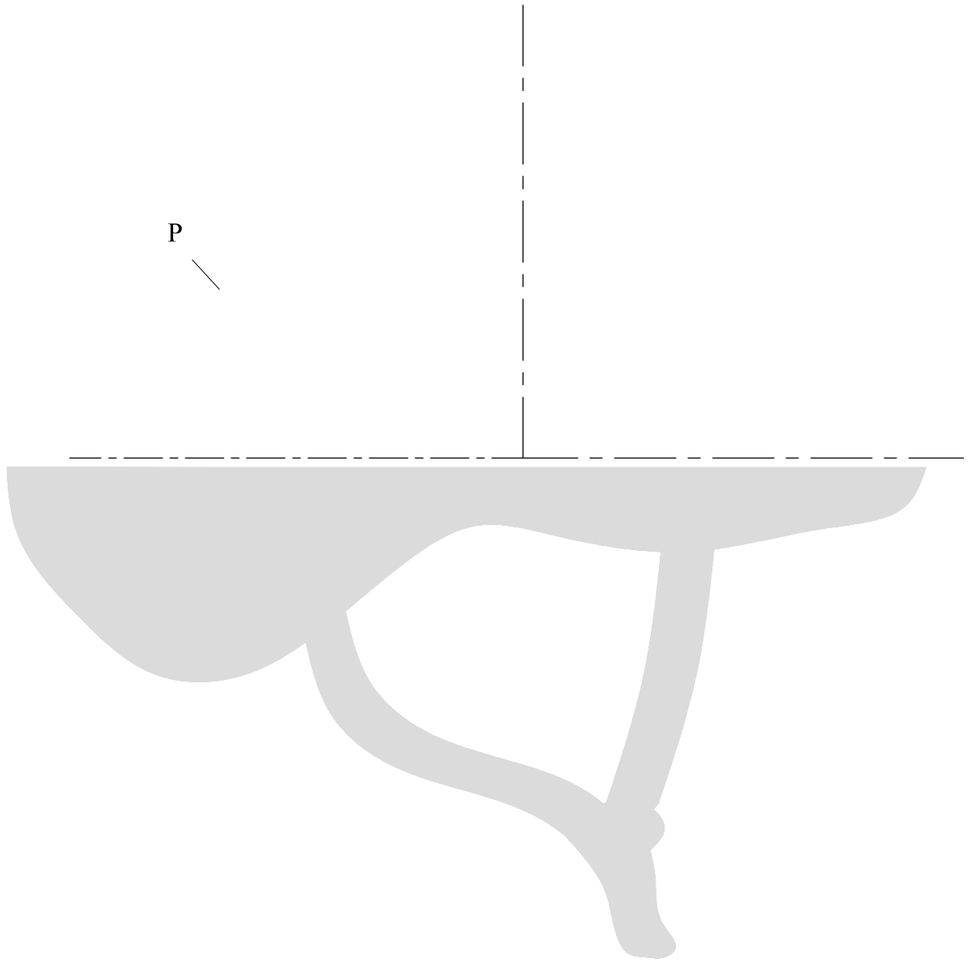
Question 2. The profile of a cyclist's helmet consists mainly of a semi ellipse and a tangential straight portion. On the given start lines and to the given dimensions:

a) Construct a semi ellipse having a major axis of 132mm and a minor axis of 96mm.

b) Locate the focal points.

c) Construct a tangent at point P to complete the helmet.

12 marks

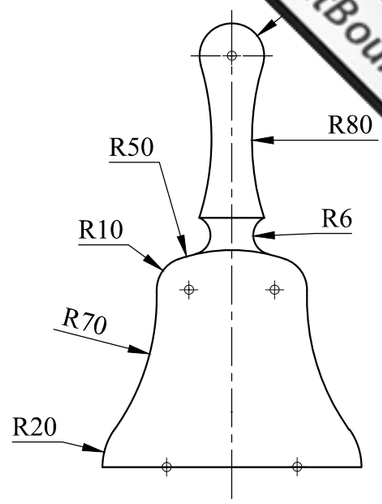


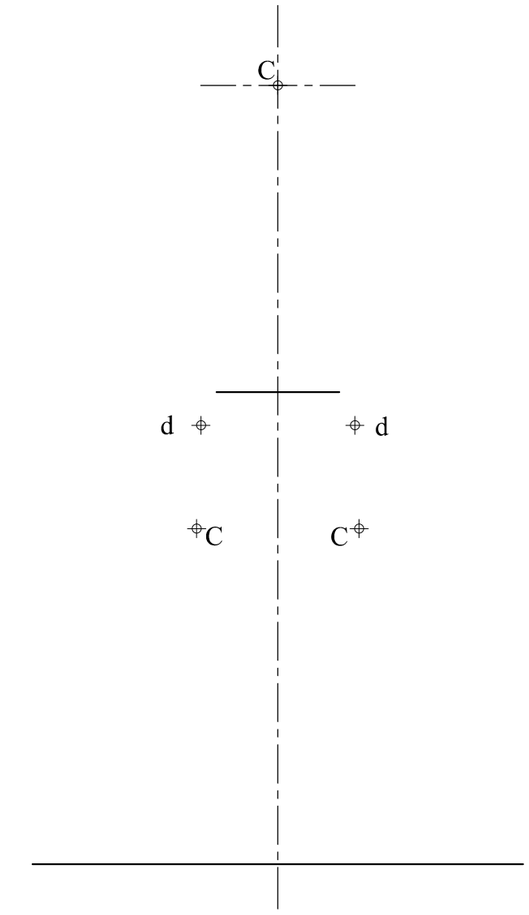
Question 3. The outline of a hand-held bell consists of a number of straight lines and arcs. Using the given start lines and centre lines, construct the bell and handle.

Notes:

- *Leave all constructions to locate centres and points of tangencies visible.*
- *Centres of the R10 (c) and R6 (d) arcs are given.*

16 marks





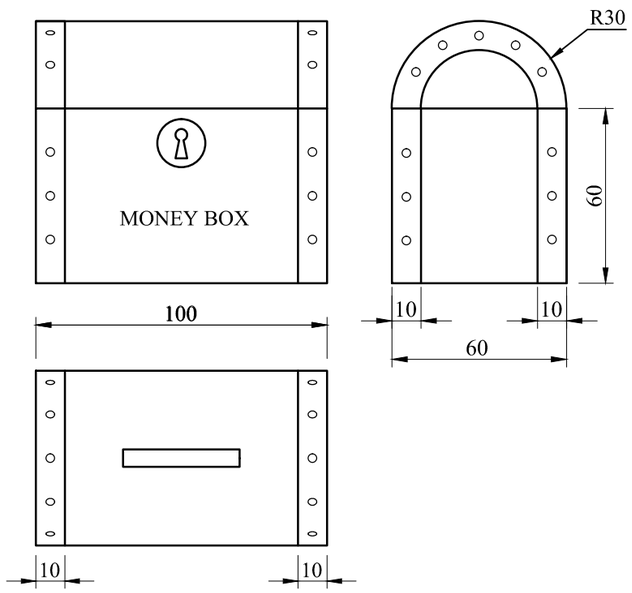
Question 4. Three orthographic views of a Money Box in the form of a treasure chest are given.

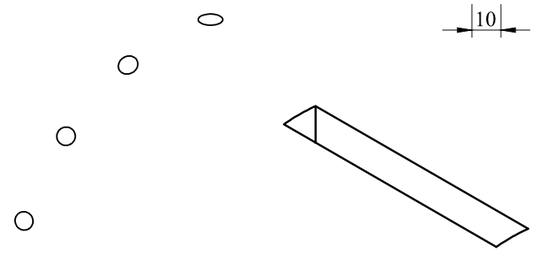
On the given start lines and using the given dimensions, draw an isometric view of the Money Box.

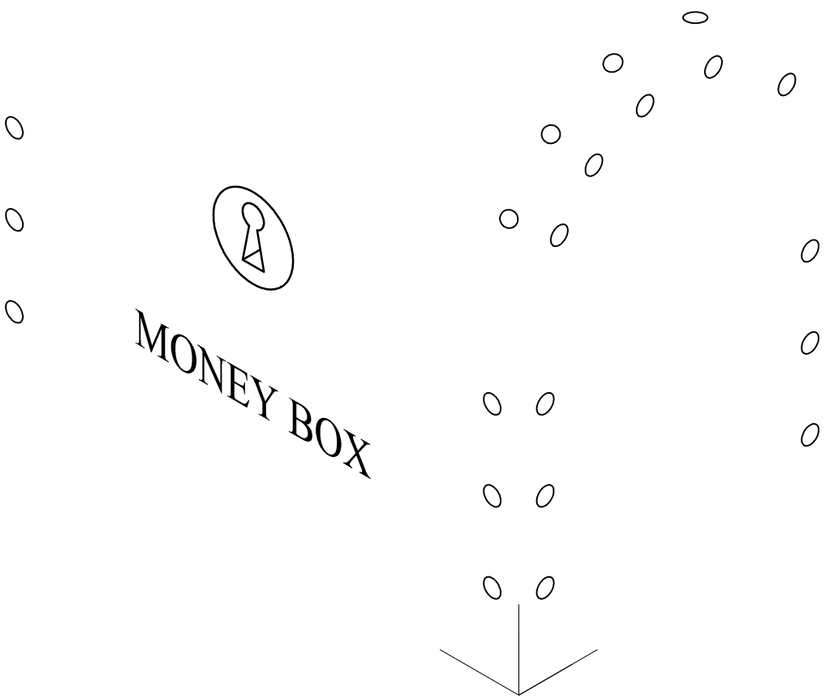
Note:

The coin slot, the key hole and the screw heads are given.

16 marks





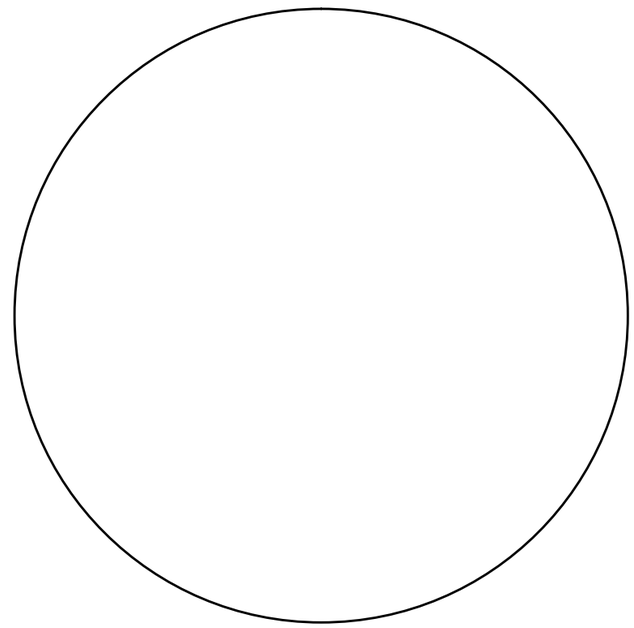


Question 5. A drawing of a jack hammer operator and a photograph of some of the safety g[illegible]ary to operate the jack hammer are given below.

In the circle provided, draw one safety sign that orders the operator to wear one of the items shown in the photograph.

Note: Colour your safety sign in accordance with the regulations set on ISO 7010.

14 marks



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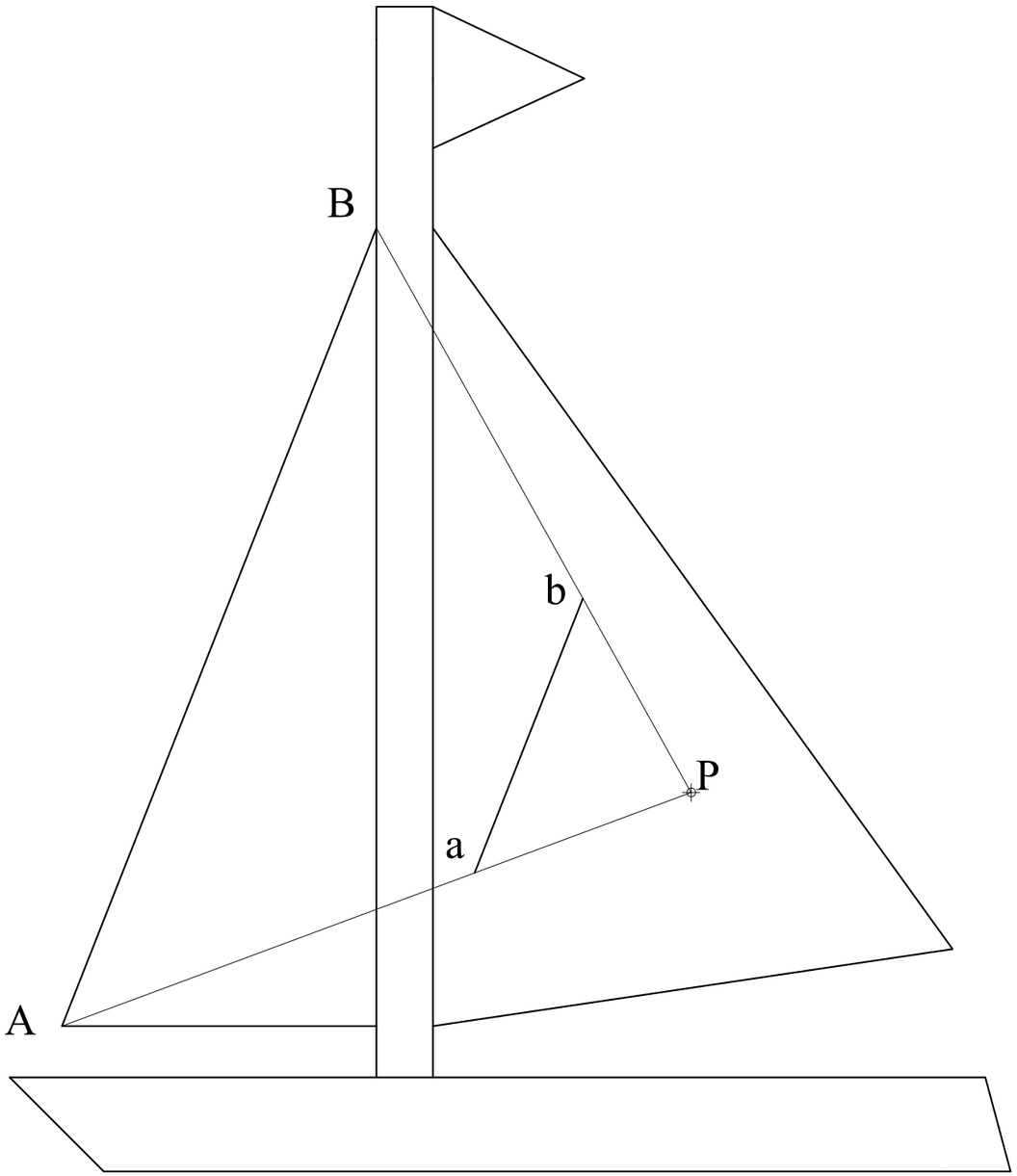
Question 6. The drawing of a sailing boat is given below. Using the radials from a pole method, reduce the size of the drawing such that line AB is reduced to line ab. Leave all construction lines visible.

Note: Point P is the pole.

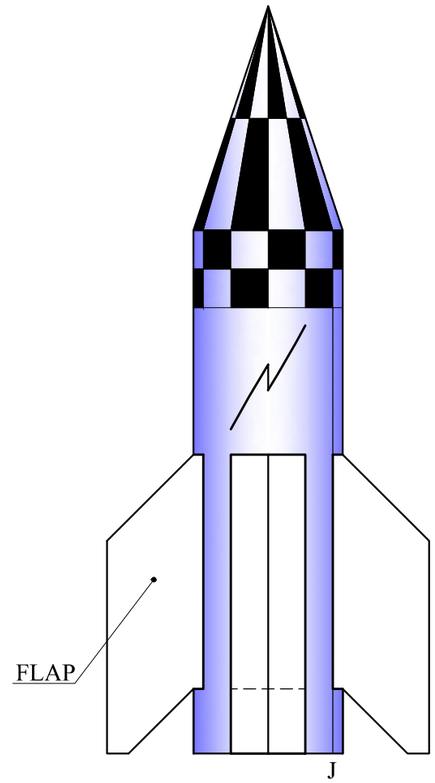
10 marks

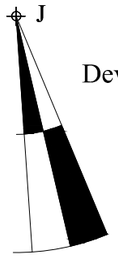


Question 7. A Front View and a Plan of a cardboard toy rocket are given below.
The front part of the rocket consists of a cone and the rear part consists of a cylinder.
In the space provided and on the given start lines:
a) Complete the construction of the development of the cone.
b) Complete the construction of the development of the cylinder.
c) Mark on the cylinder the four rectangles where the flaps are attached.
d) Mark on the cylinder the lightning symbol.
e) Shade the cone and cylinder as per given drawing.

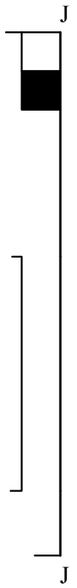
Note: JJ is the joint line.

14 marks

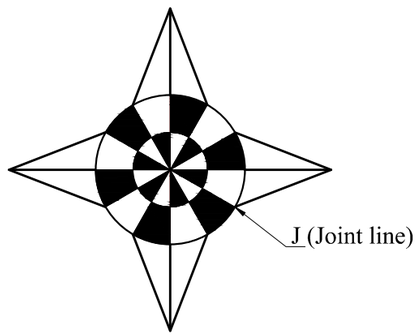


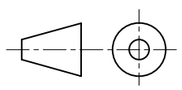


Development of cone



Development of cylinder





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Class: