



# ISOMETRIC DRAWINGS

## Principles of Sectioned Isometric Drawing

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Senior Educational Specialist for  
Engineering Graphics and Design  
Free State Province



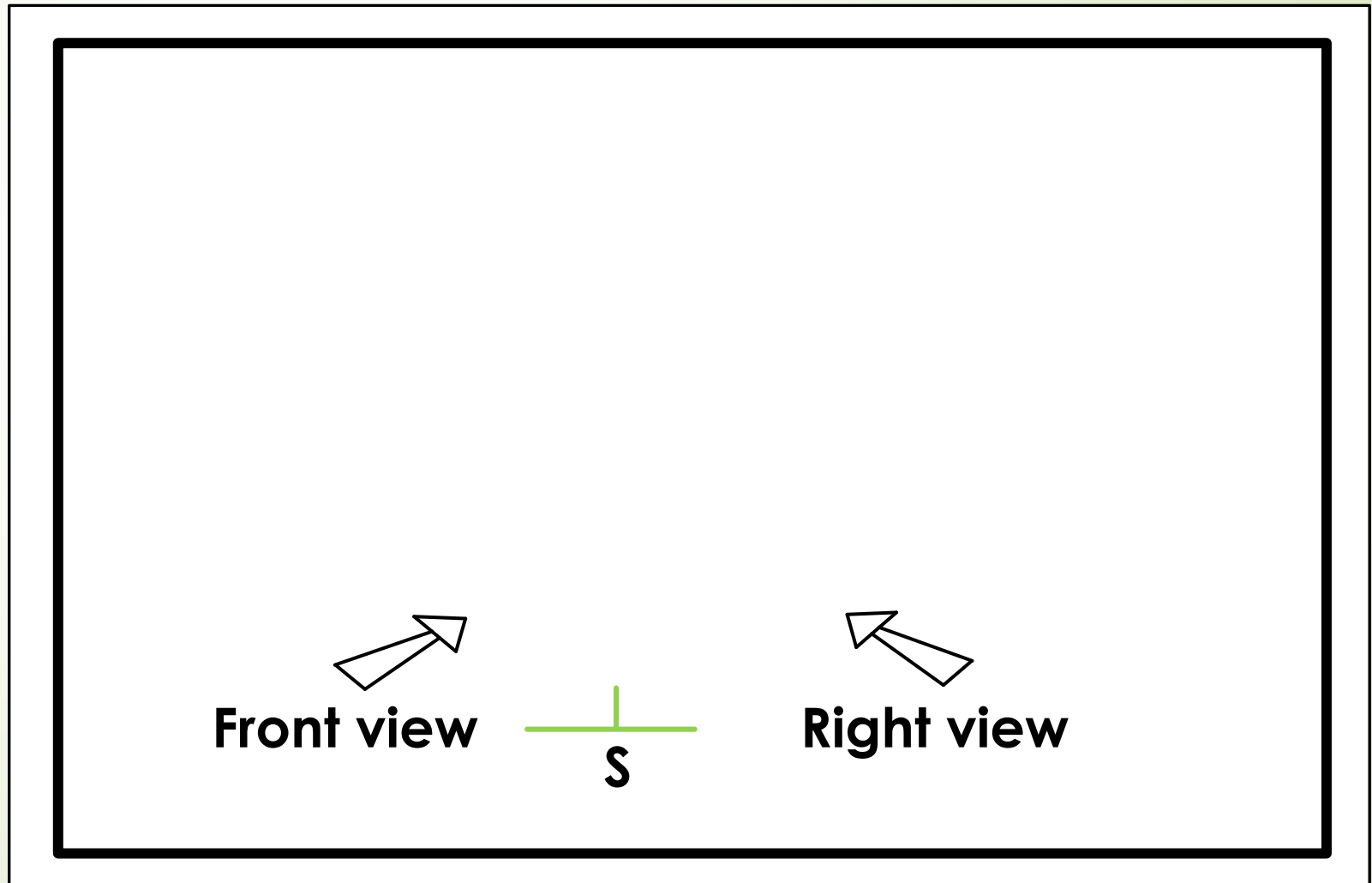
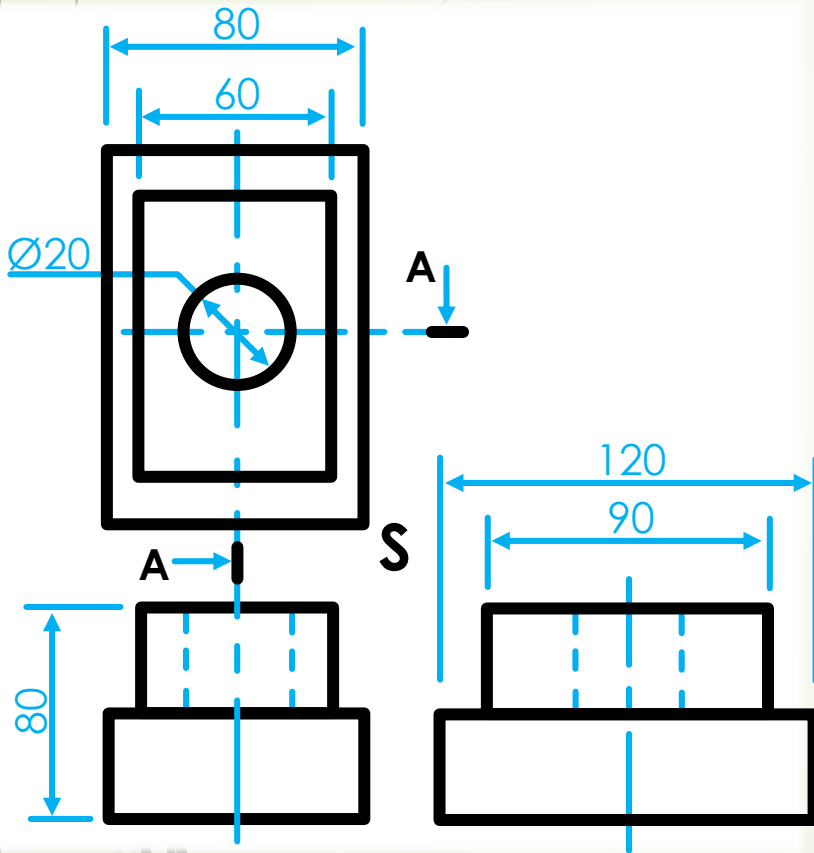
education

Department of  
Education  
FREE STATE PROVINCE

# ISOMETRIC DRAWINGS

Step 1

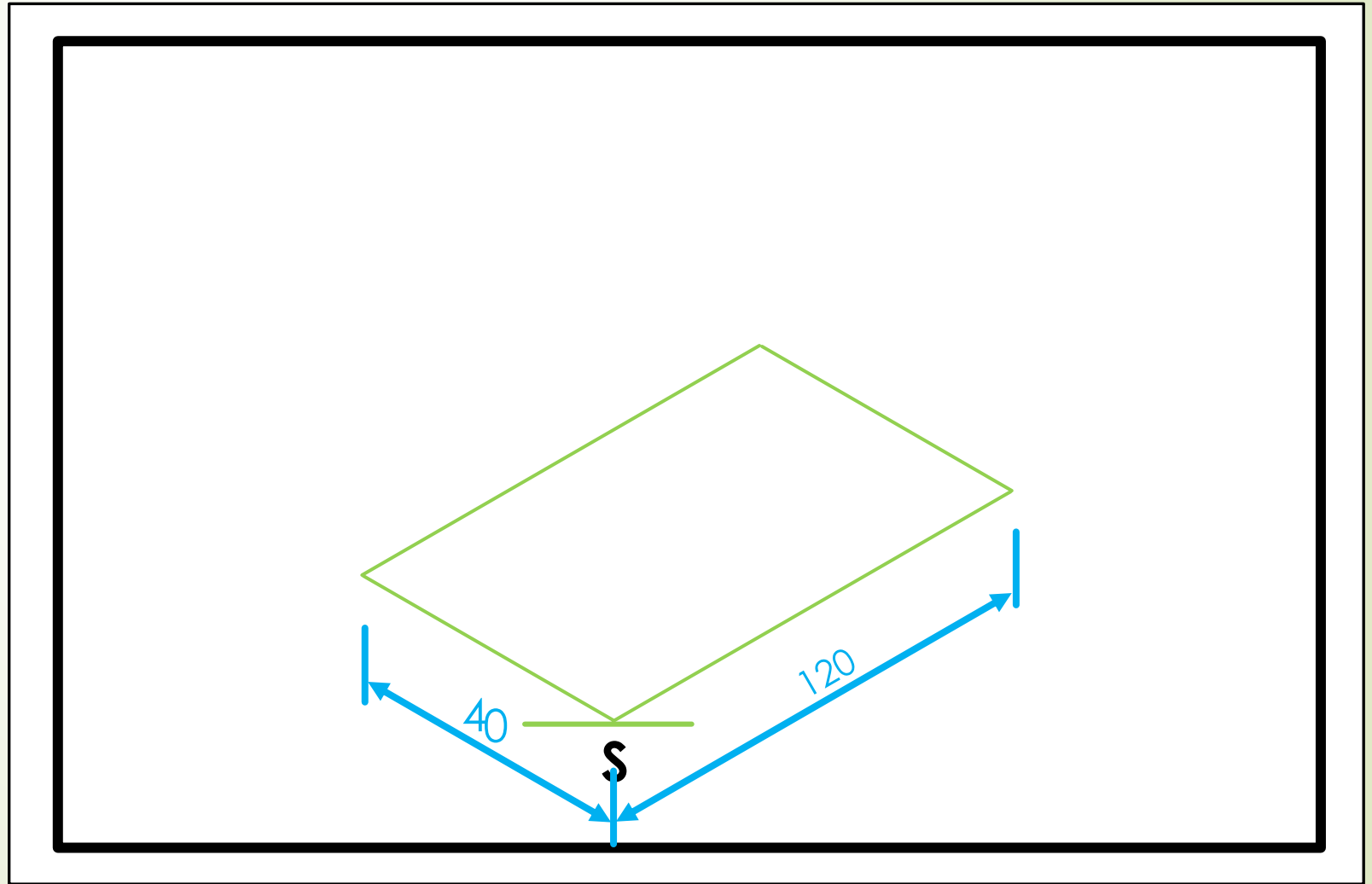
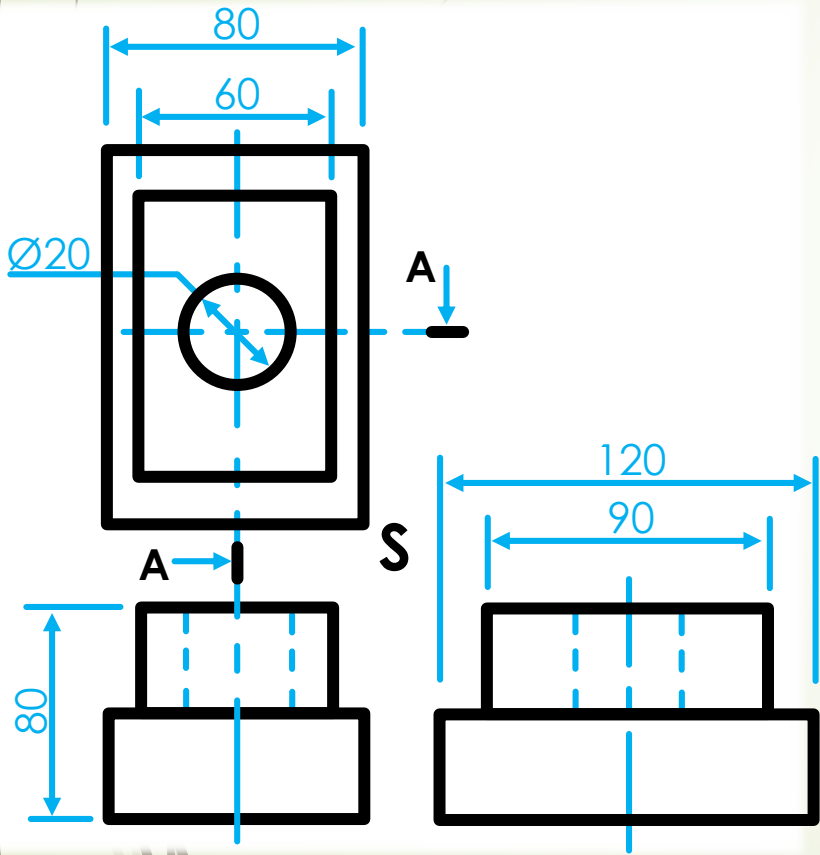
- Determine the position of the front and right view and place point "S" as the lowest point



# ISOMETRIC DRAWINGS

**Step 2**

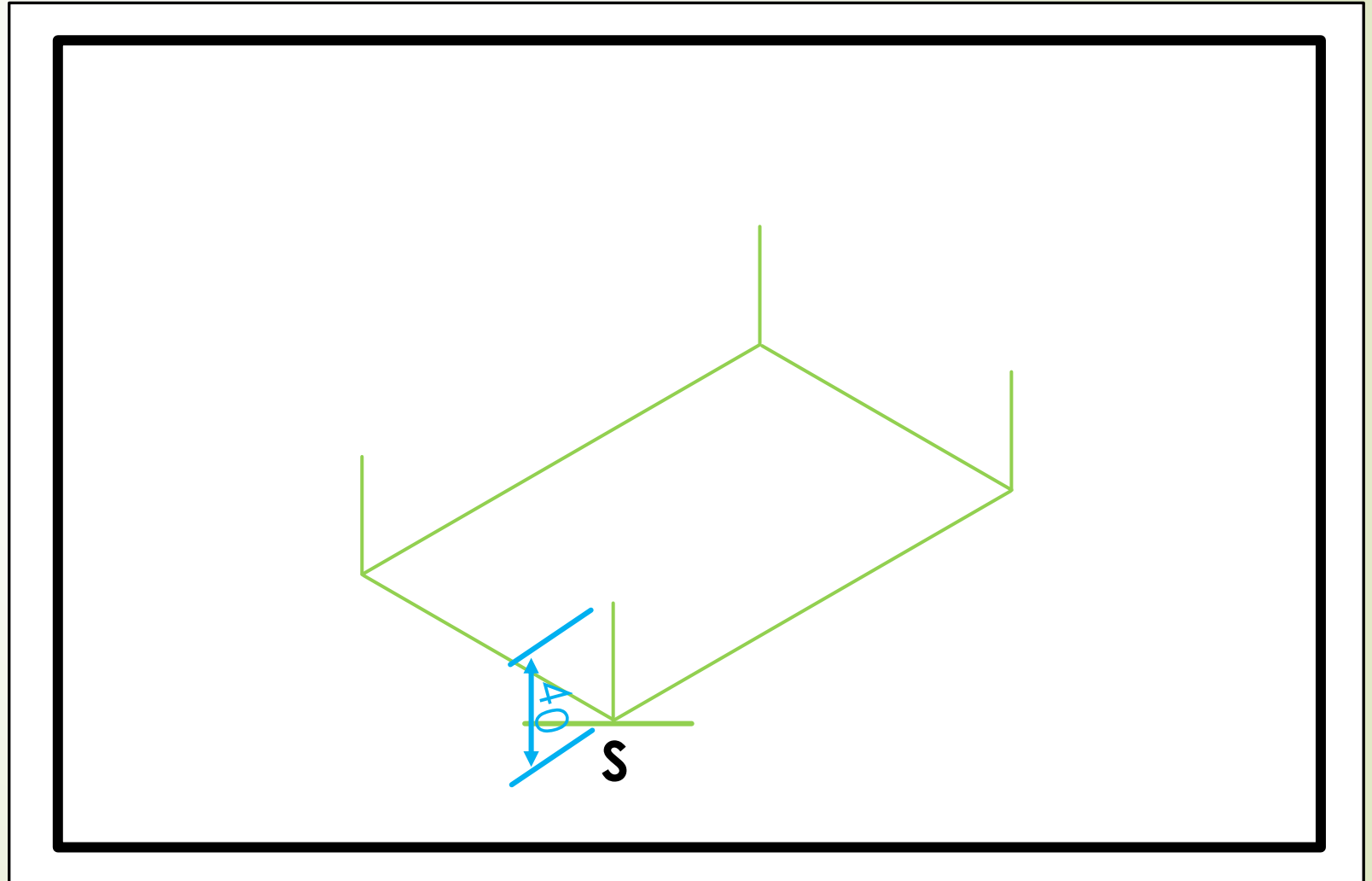
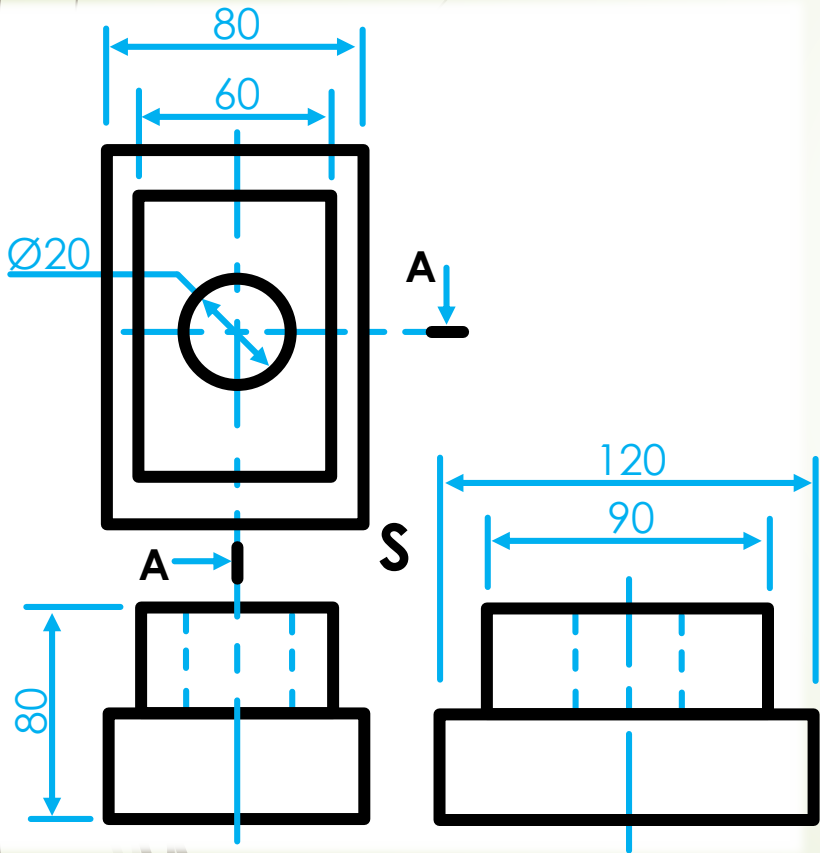
- Start with the base of the drawing.



# ISOMETRIC DRAWINGS

**Step 3**

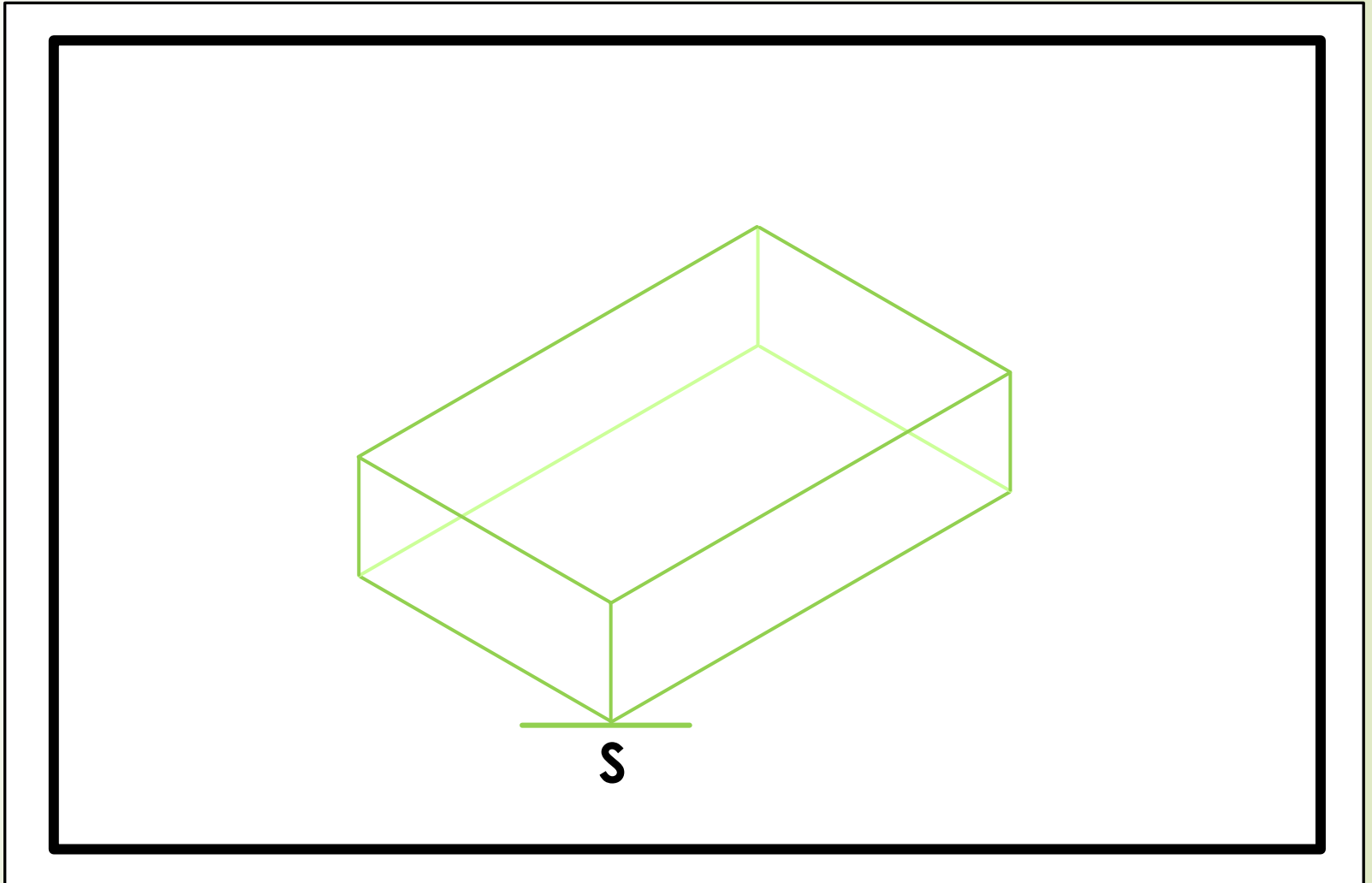
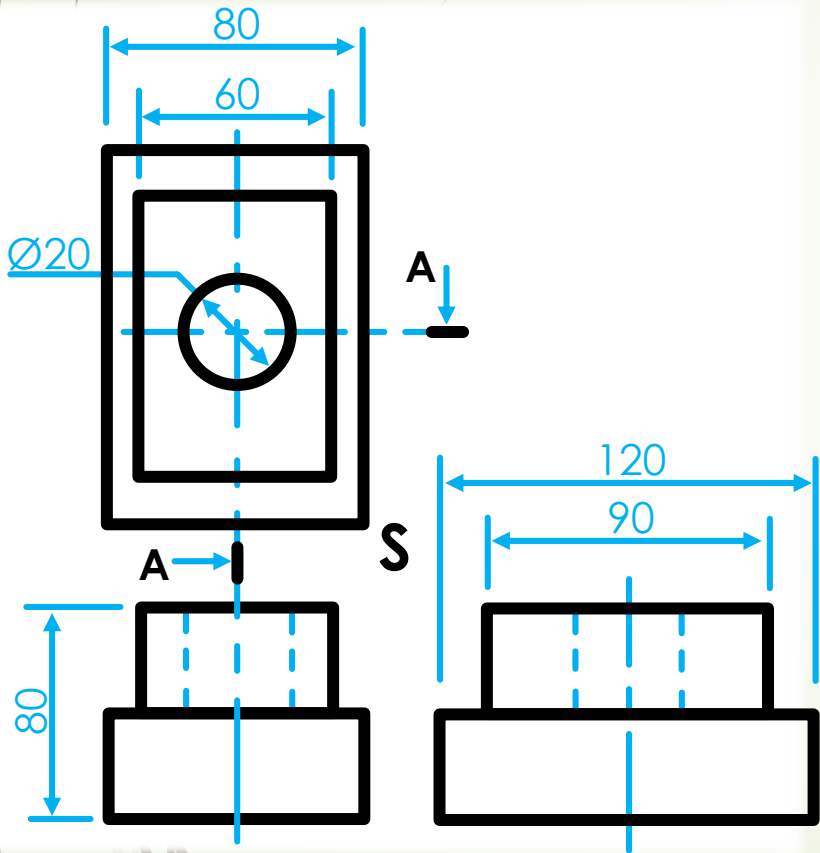
- Determine the height of the drawing.



# ISOMETRIC DRAWINGS

**Step 4**

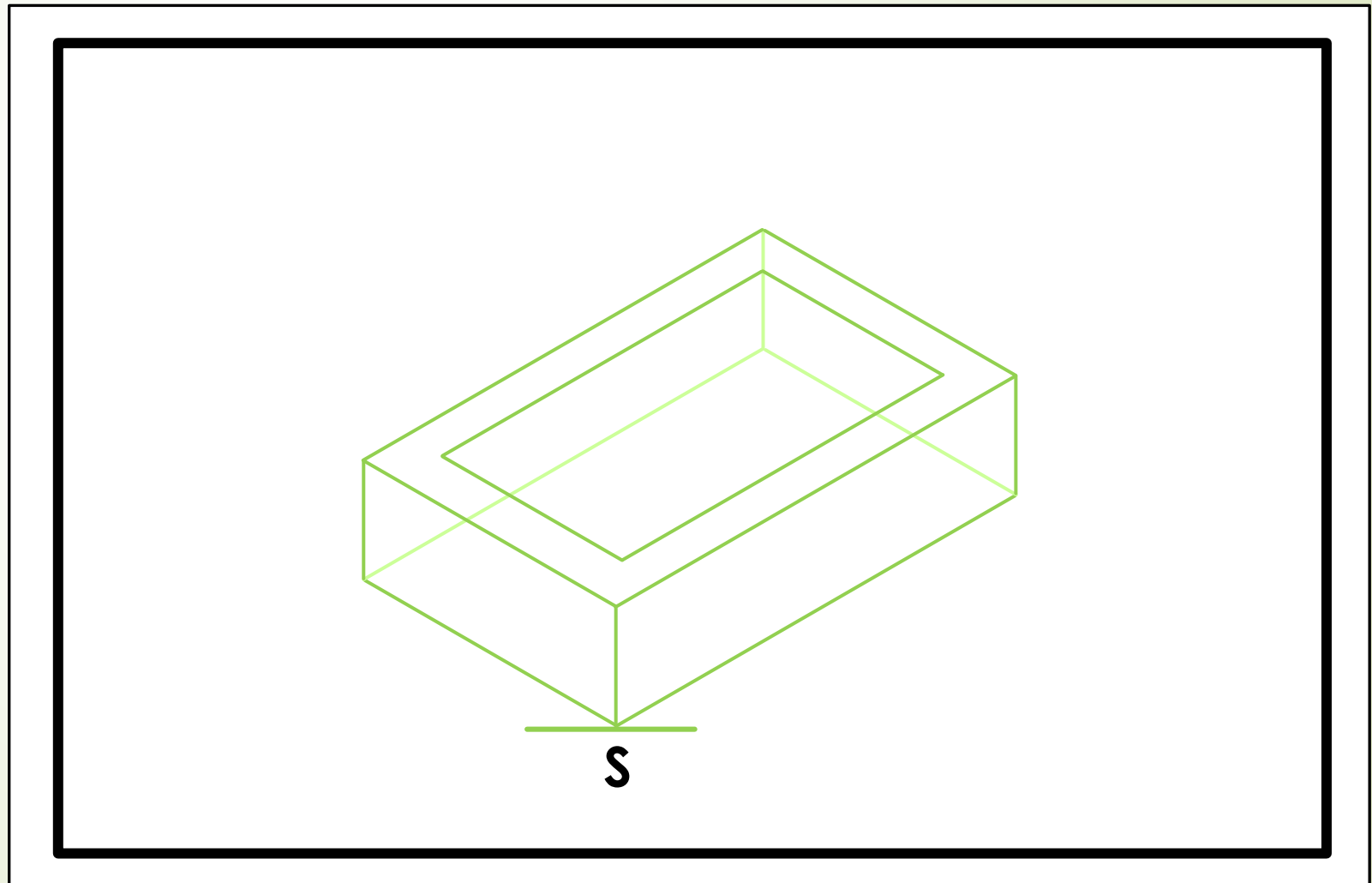
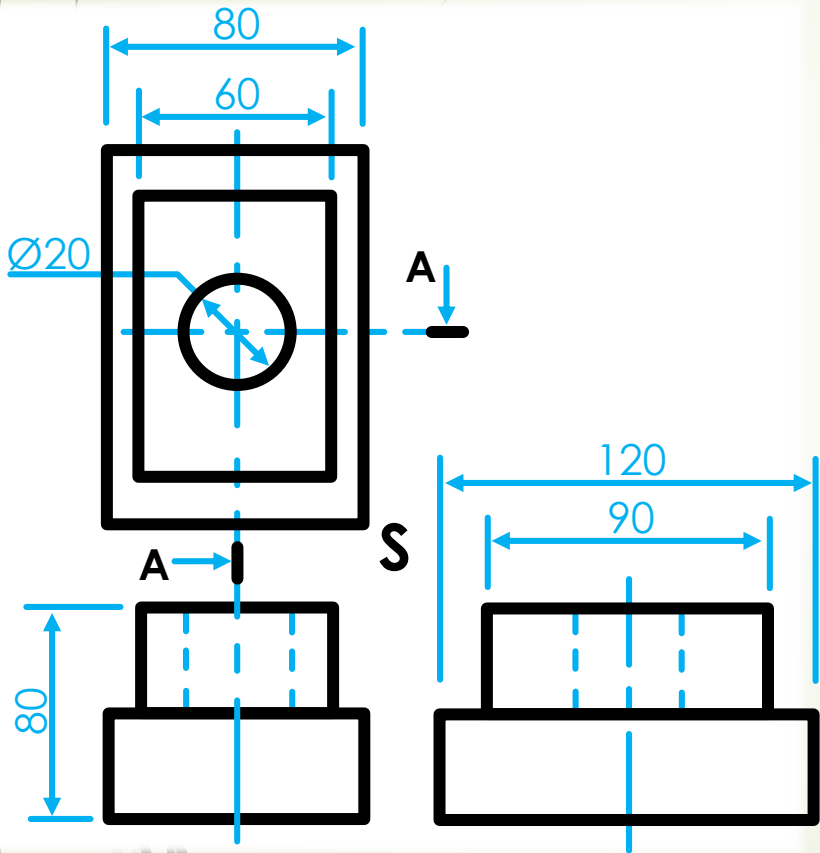
➤ Complete the base of the drawing.



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**Step 5**

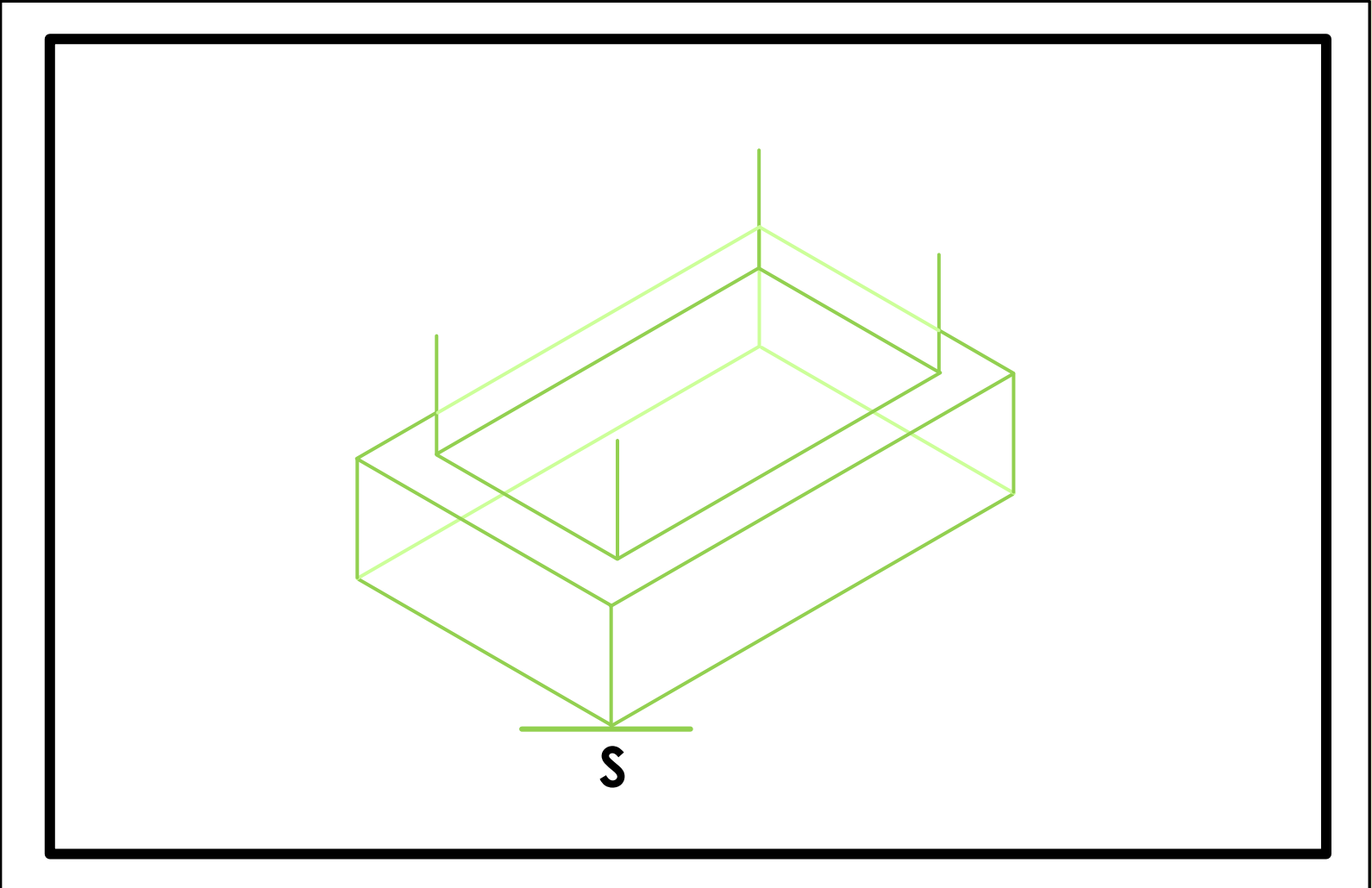
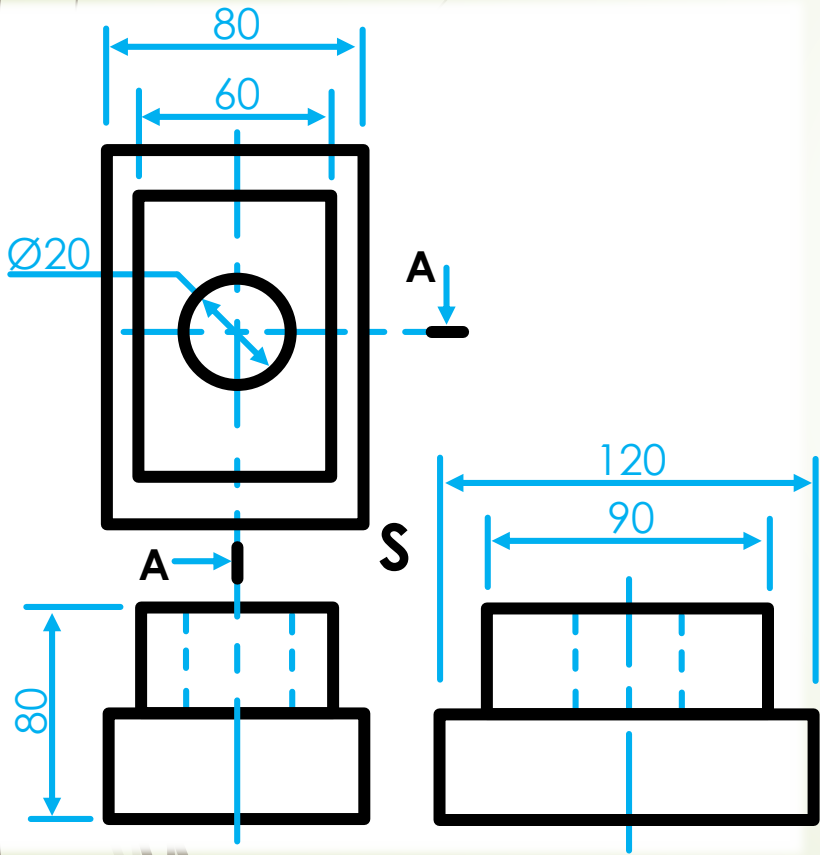
- Determine the base of the second portion.



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**Step 6**

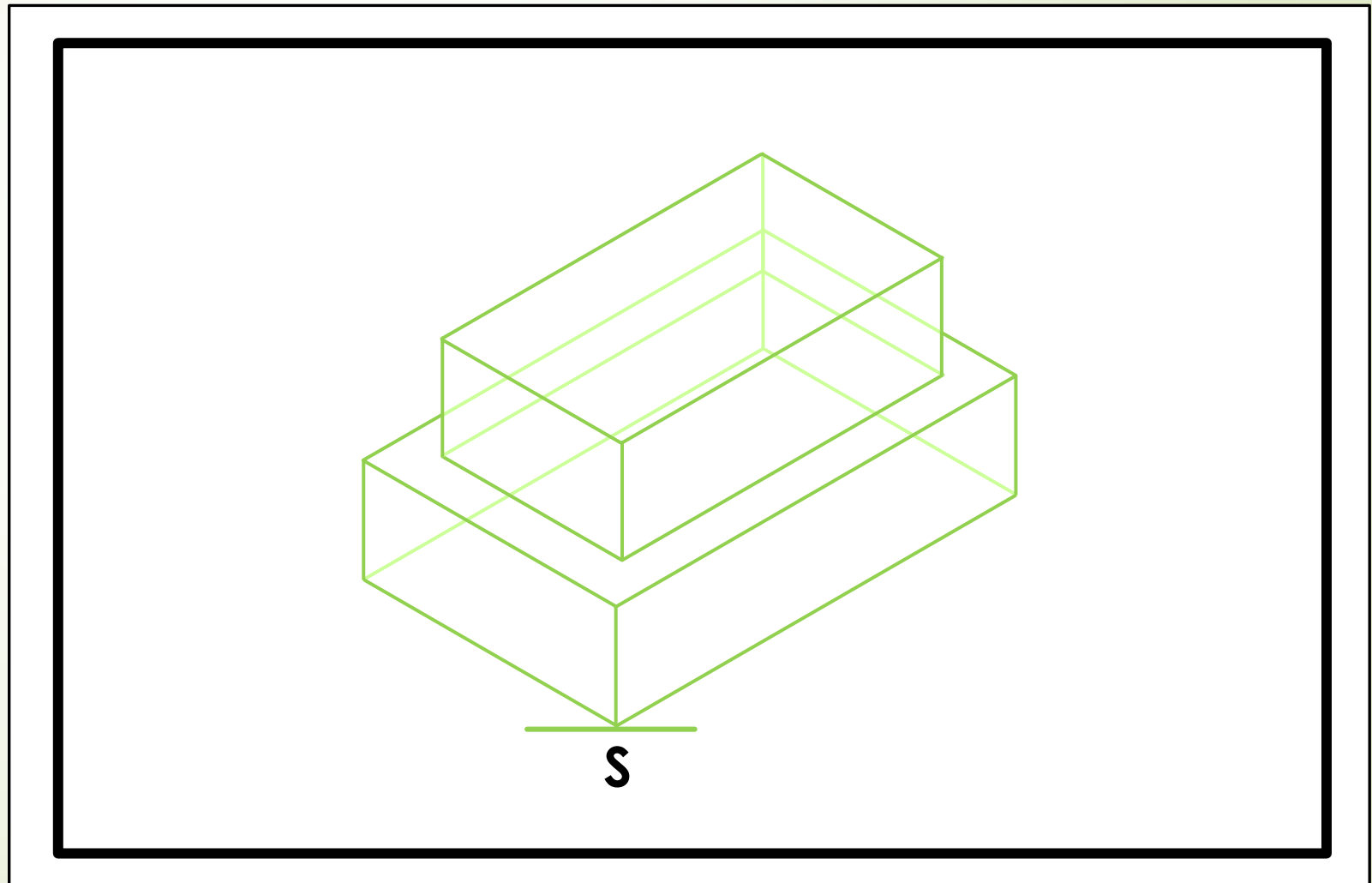
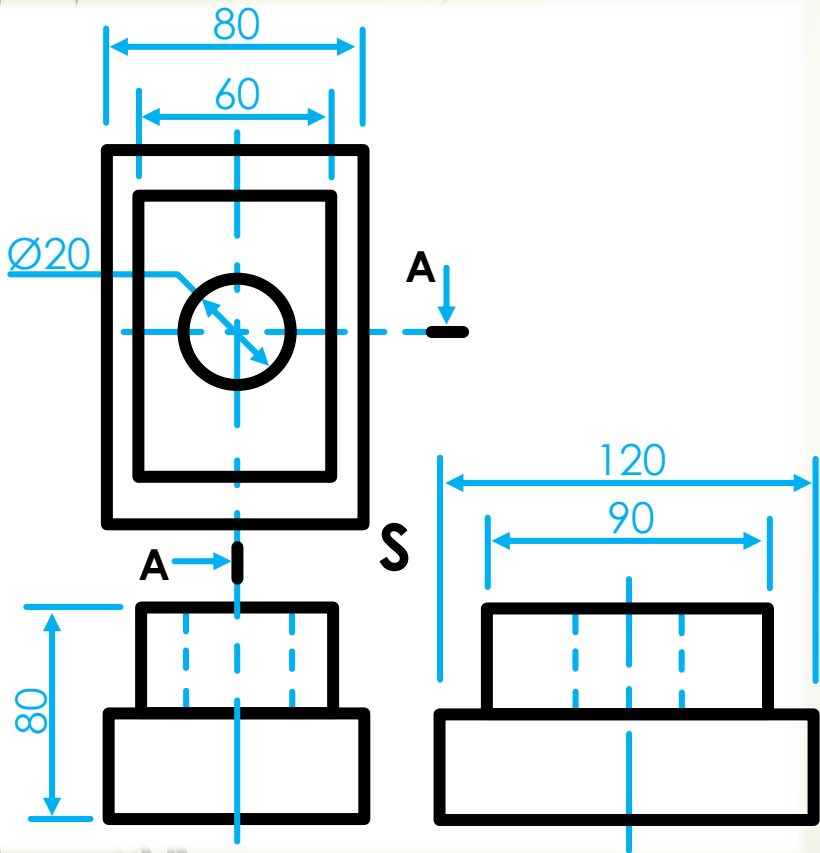
- Determine the height of the second portion.



# ISOMETRIC DRAWINGS

Step 7

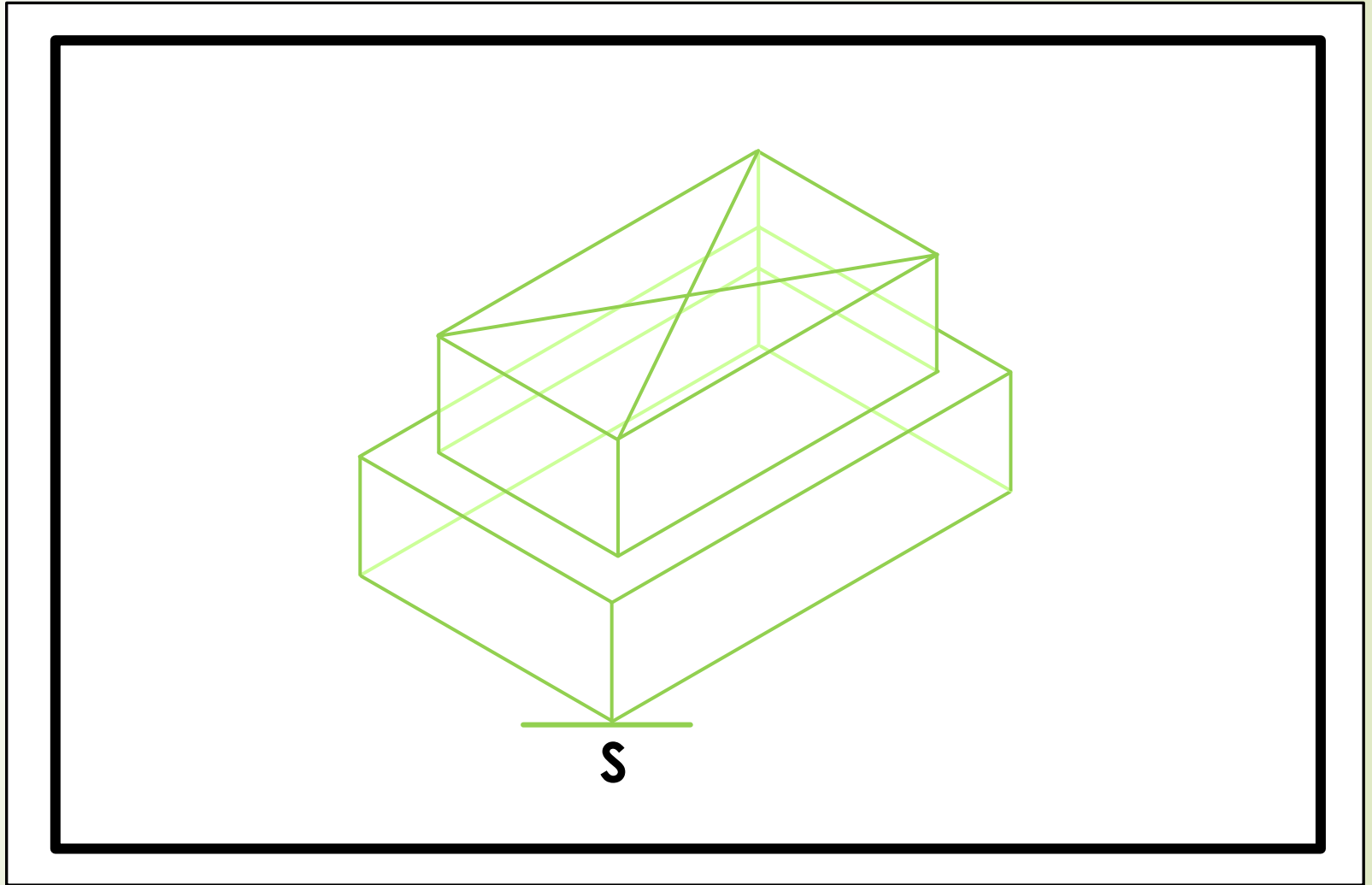
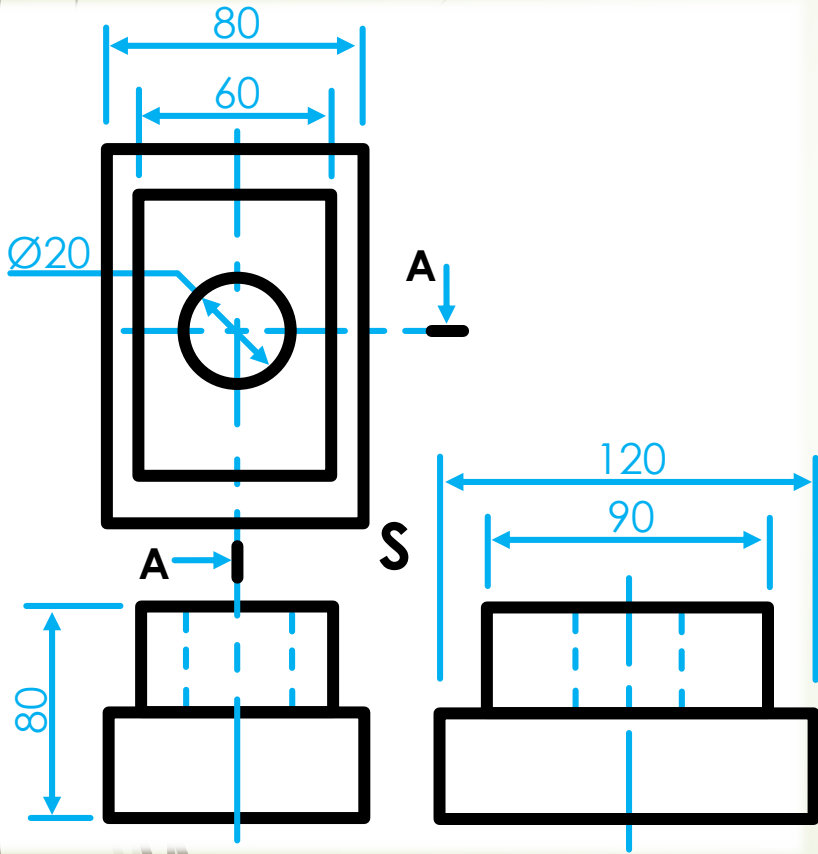
Complete the second portion.



# ISOMETRIC DRAWINGS

**Step 8**

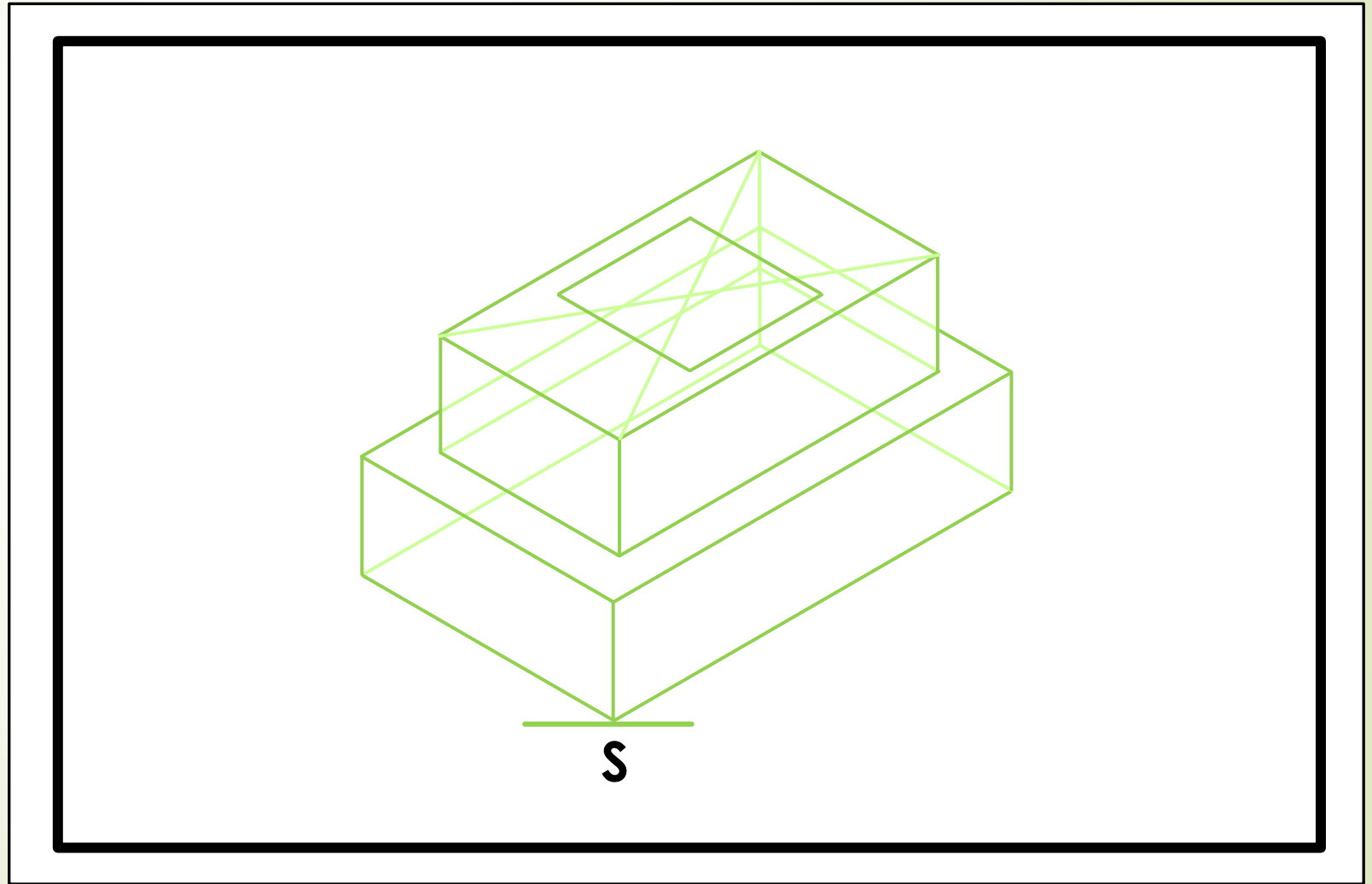
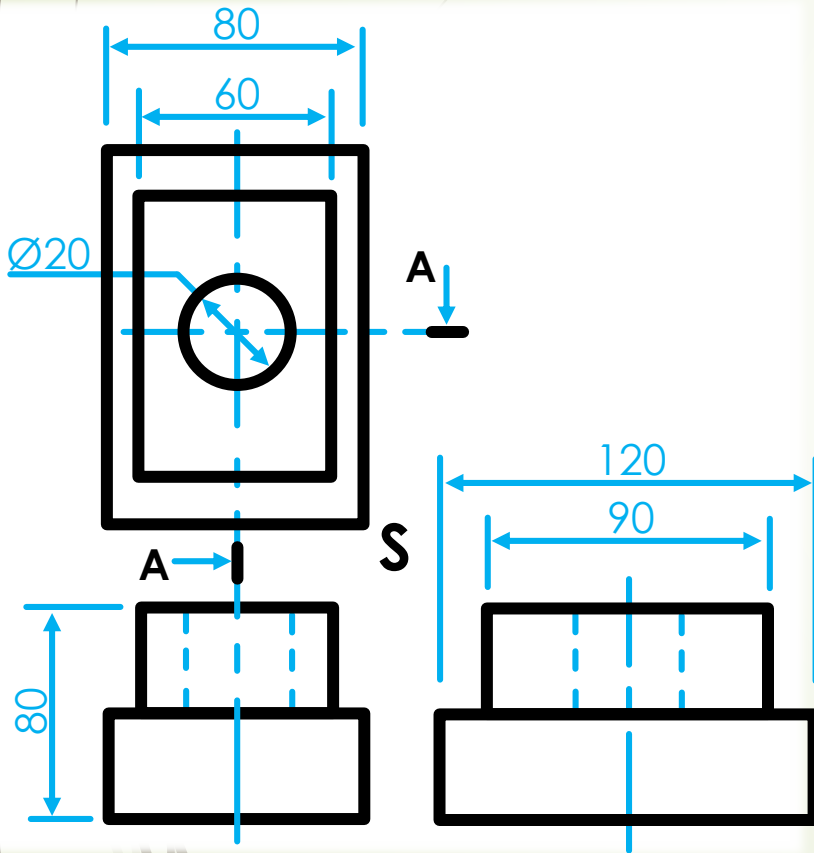
- Determine the middle point of the circle.



# ISOMETRIC DRAWINGS

Step 9

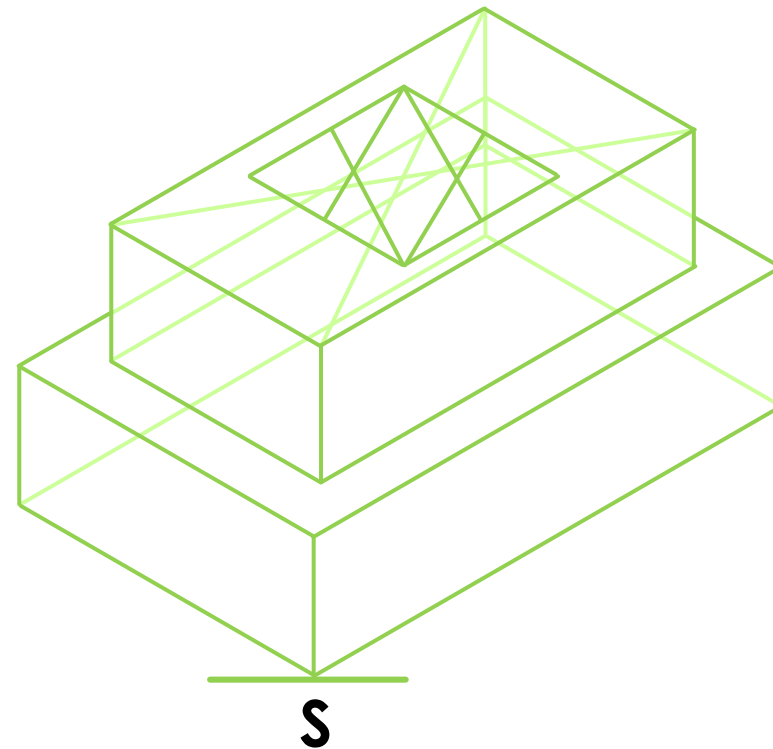
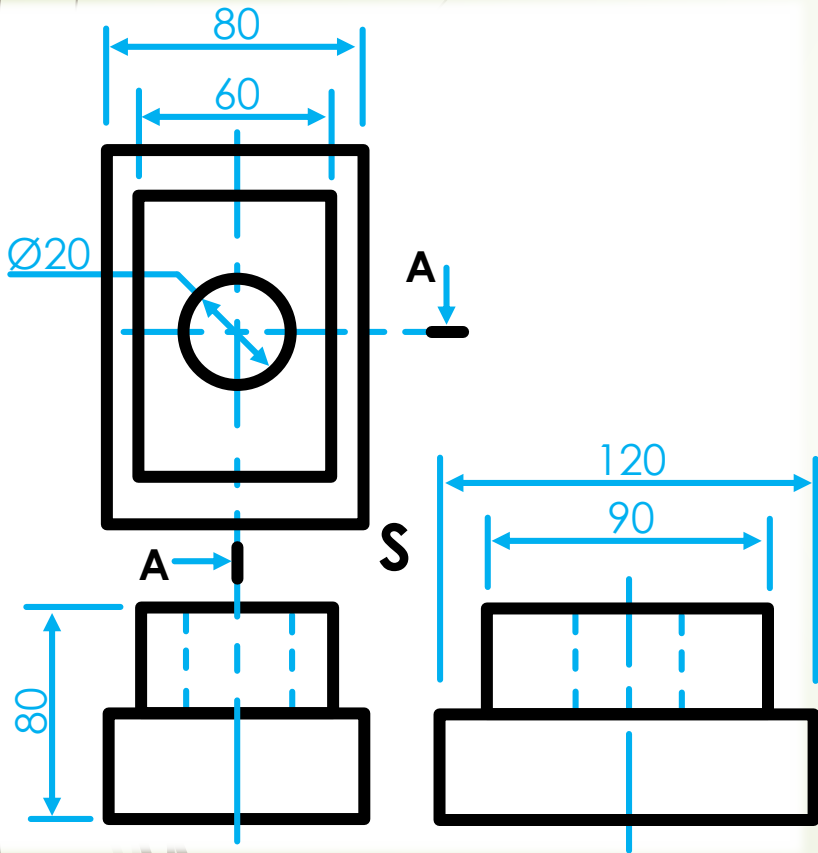
- From the middle outwards, draw the biggest possible block (20 mm x 20 mm) to determine the isometric circle.



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Step 10

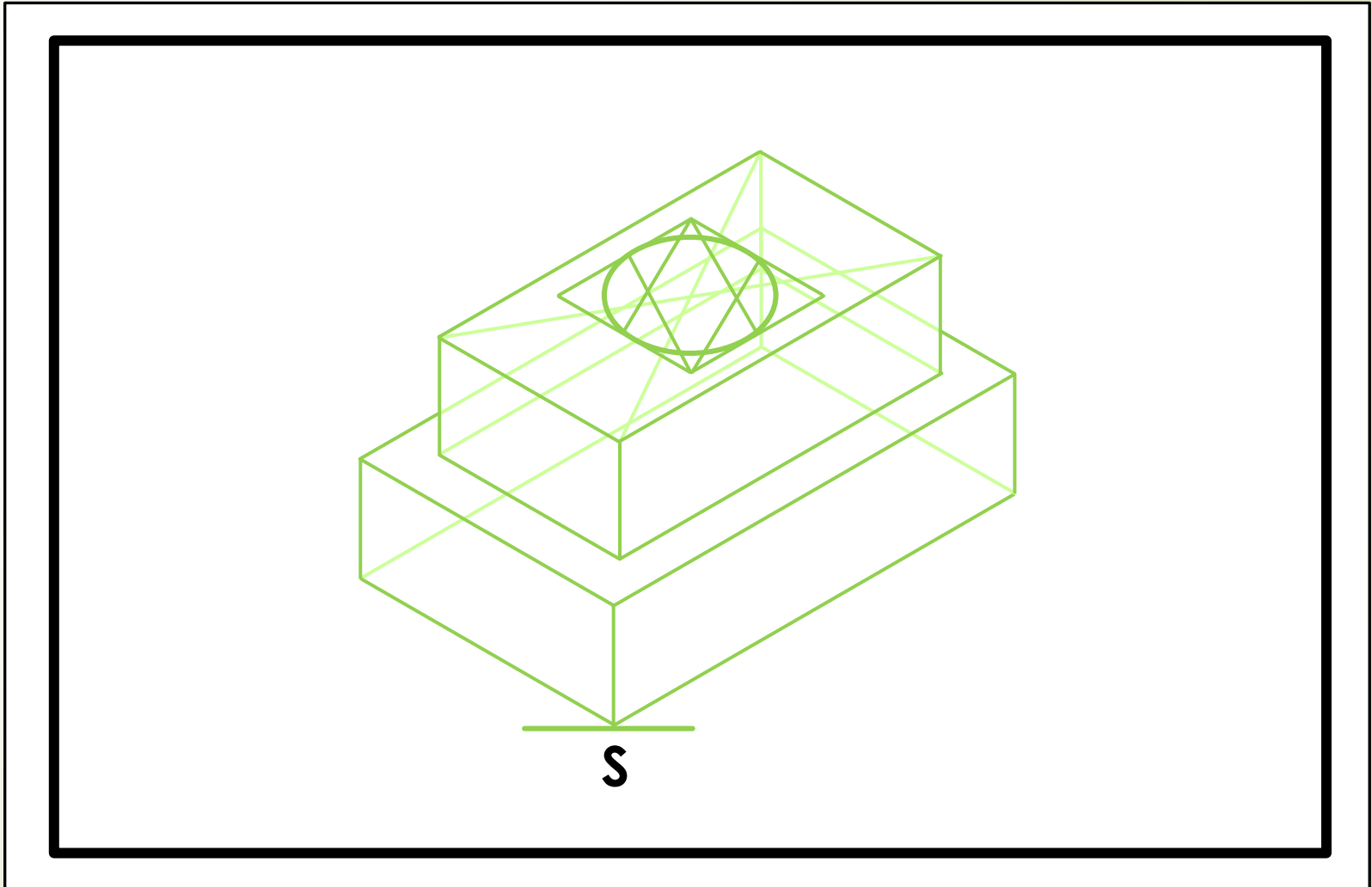
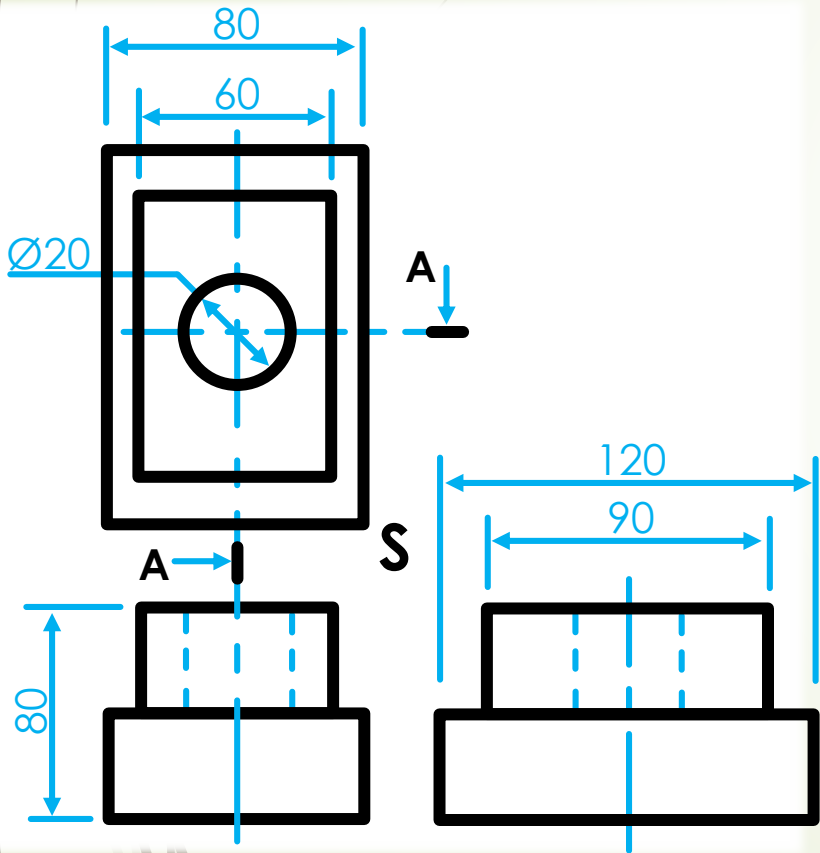
- Complete the construction to determine the circle.



# ISOMETRIC DRAWINGS

**Step 11**

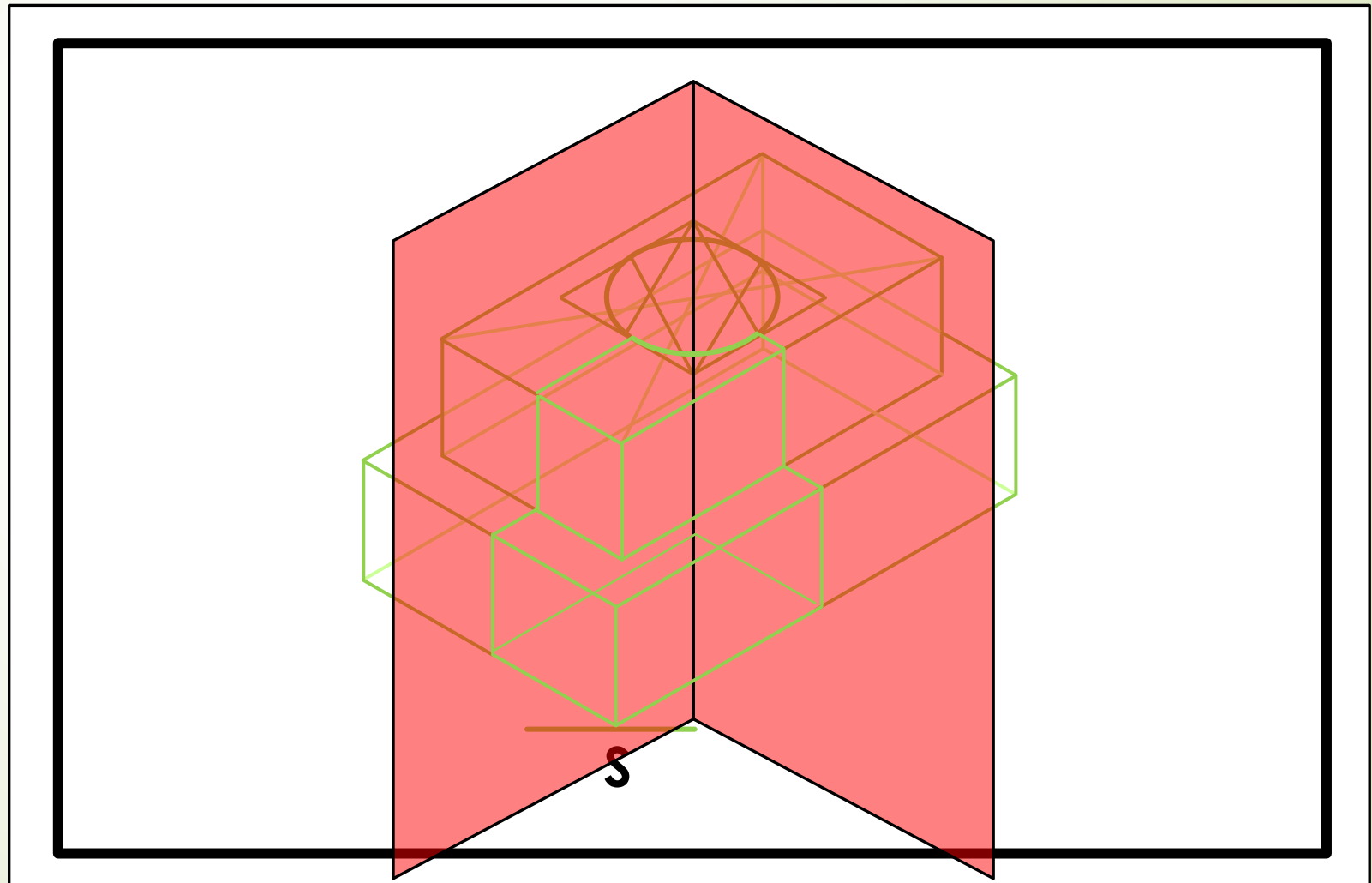
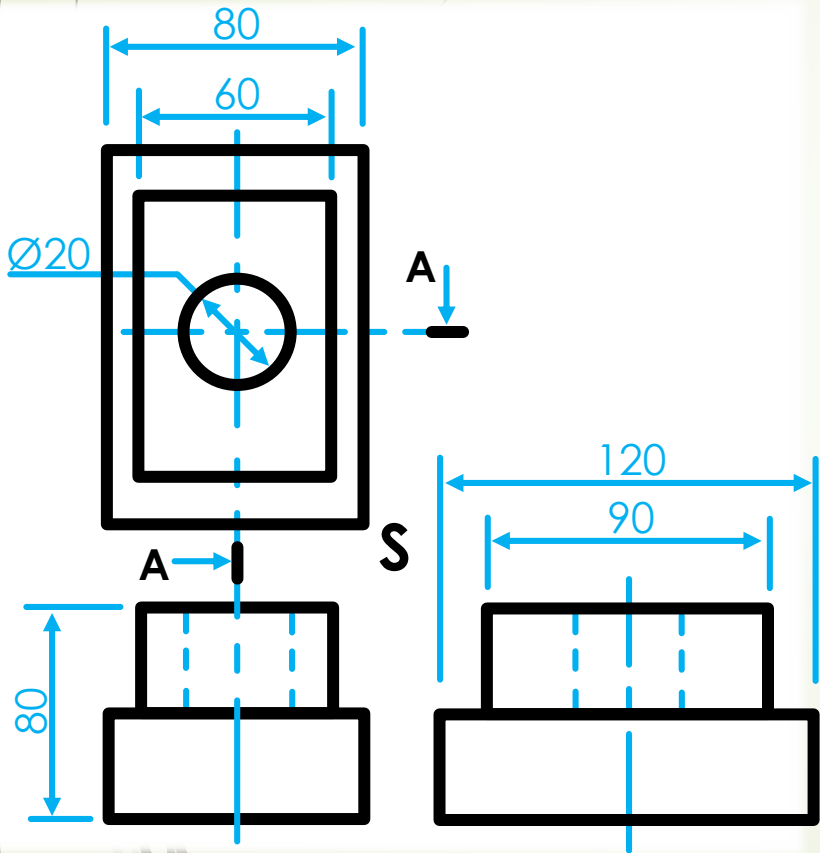
➤ Complete the upper circle.



# ISOMETRIC DRAWINGS

**Step 12**

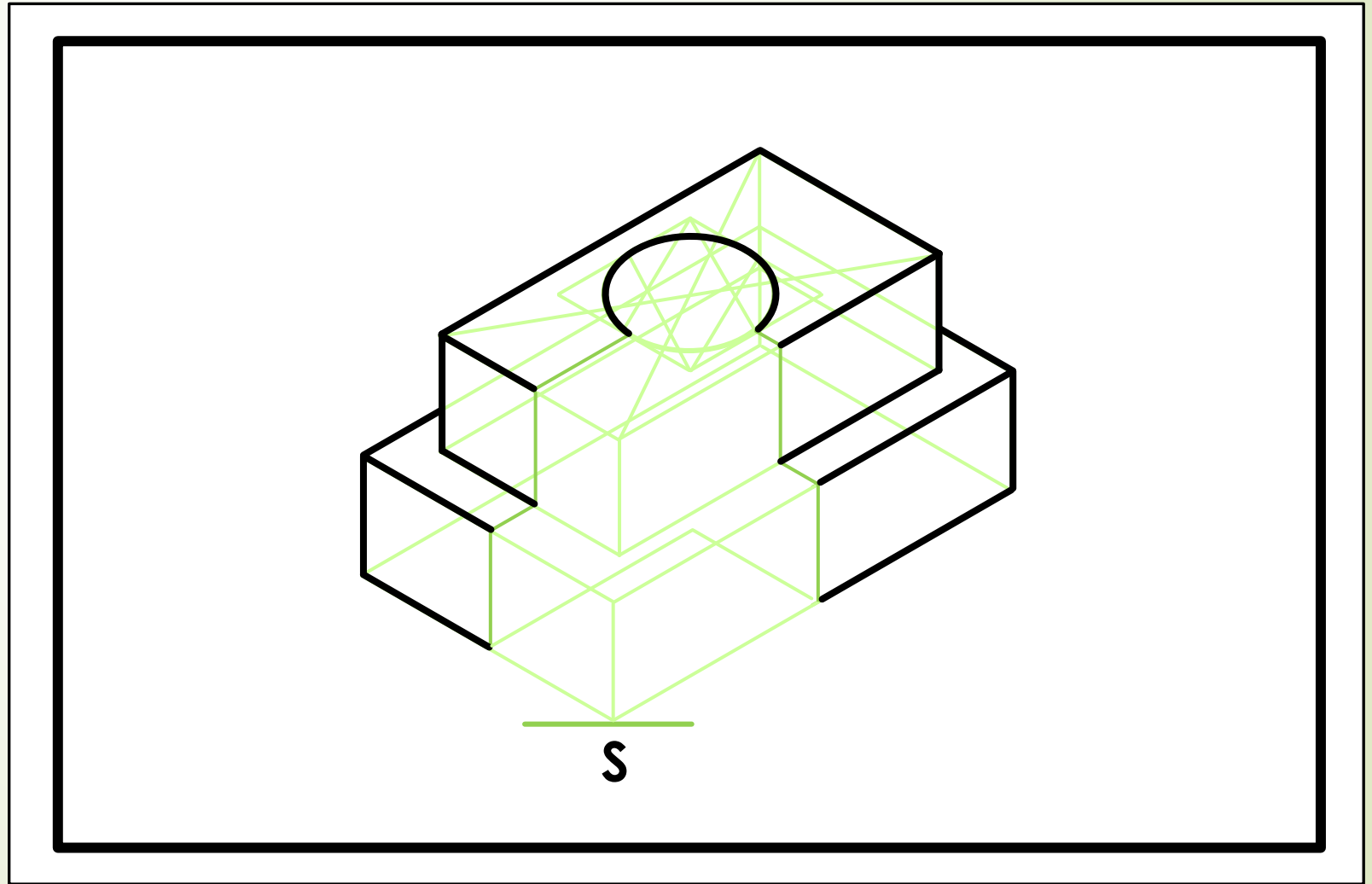
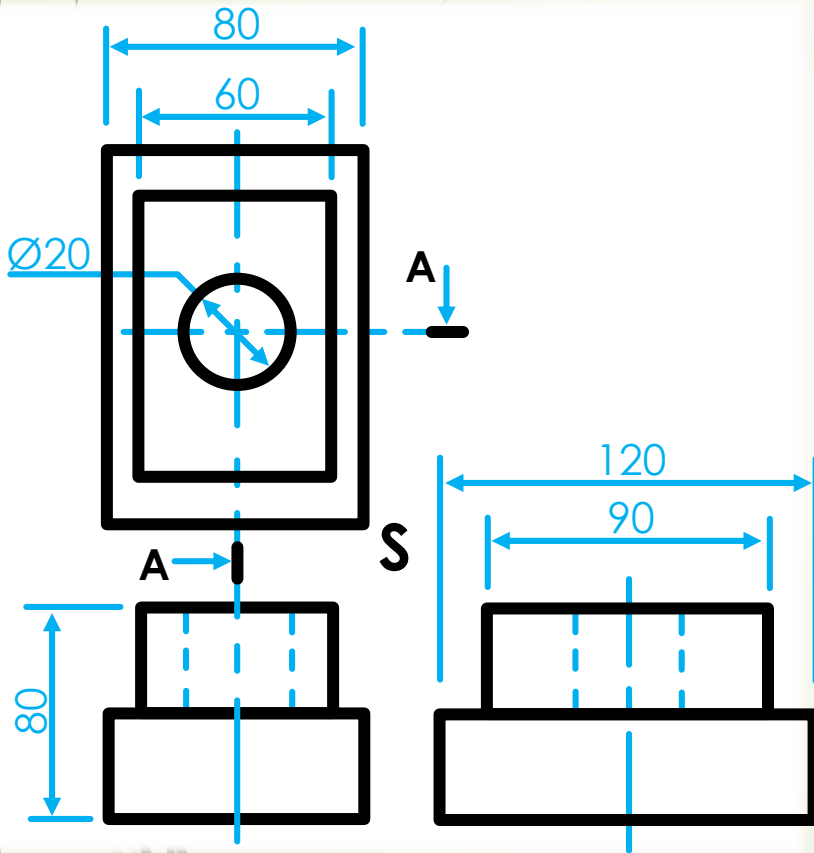
- Determine the quarter section of the front part according to section line AA.



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Step 13

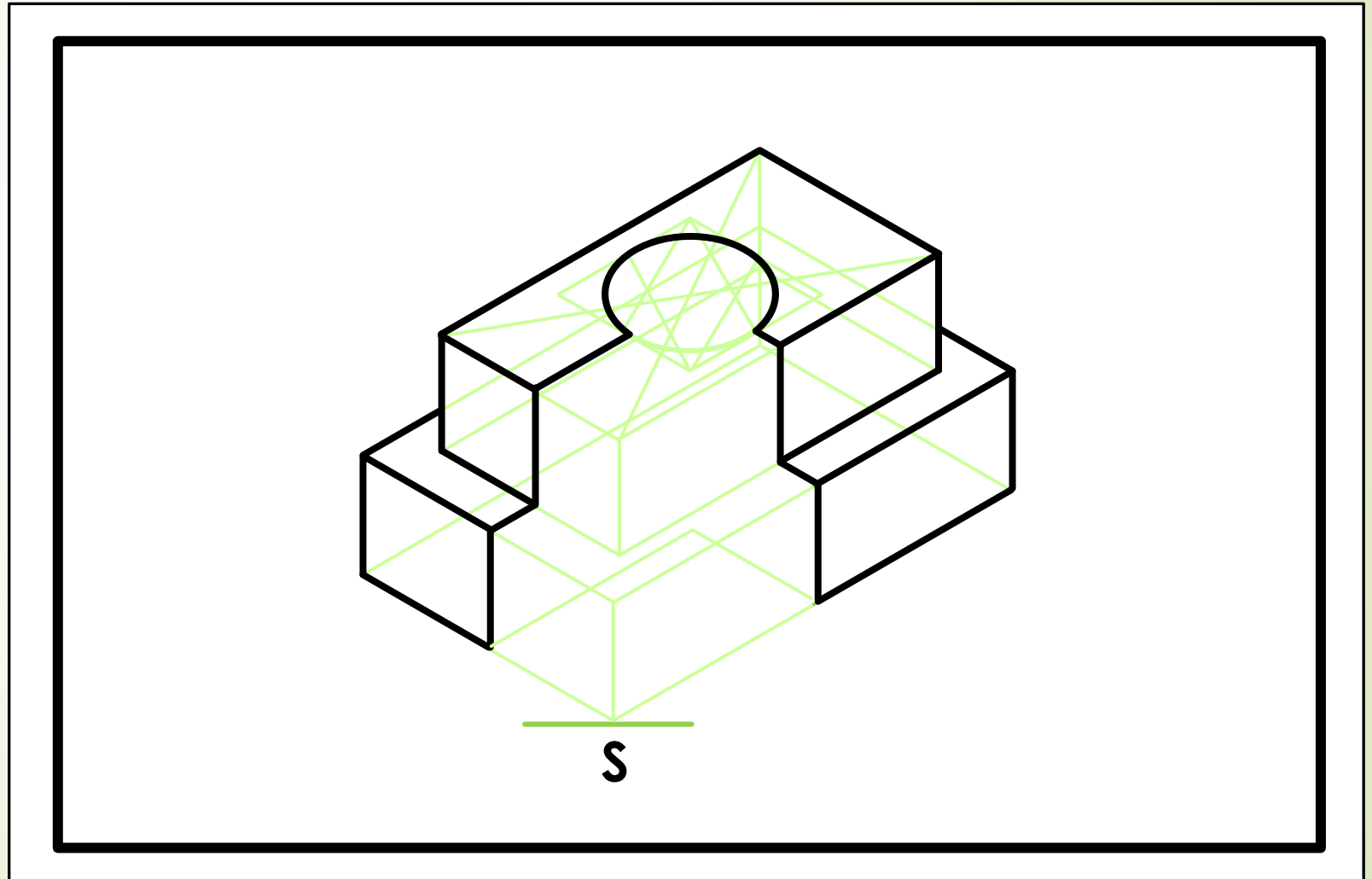
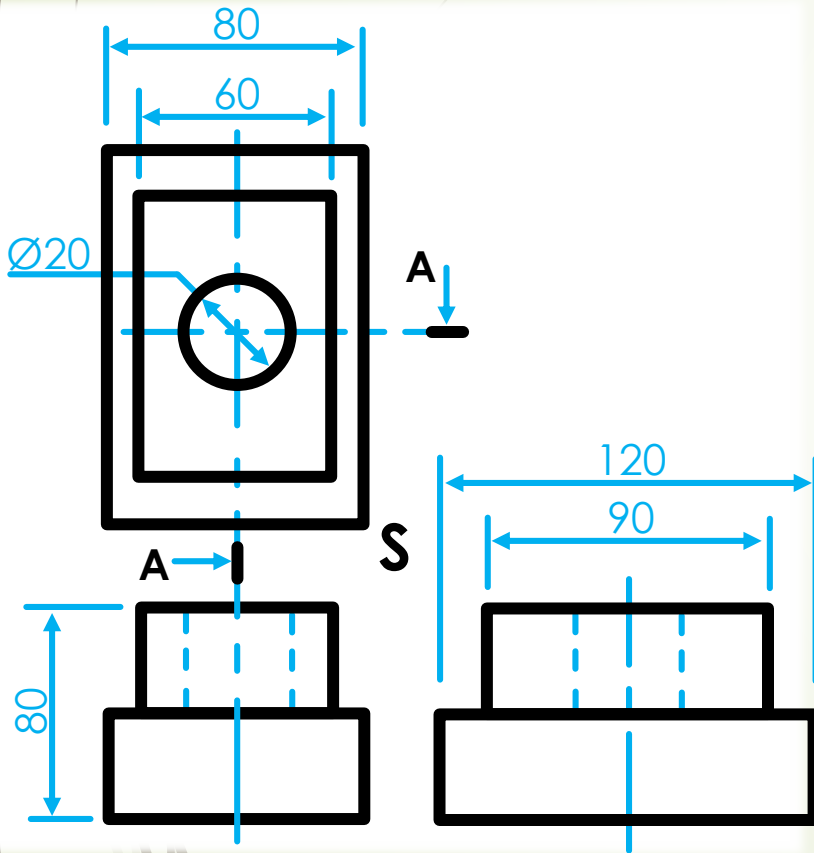
- Determine the quarter section of the front part according to section line AA.



# ISOMETRIC DRAWINGS

Step 14

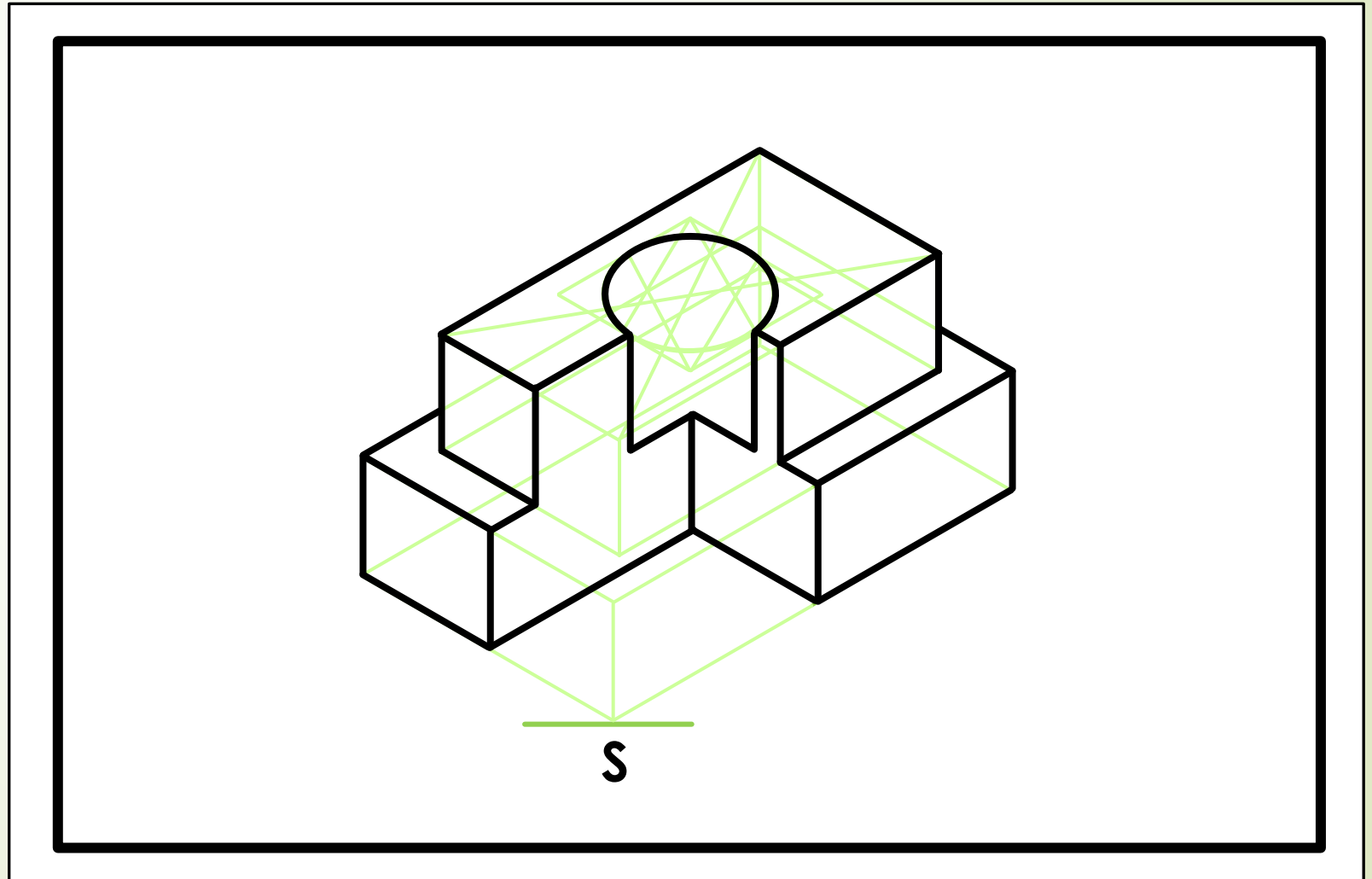
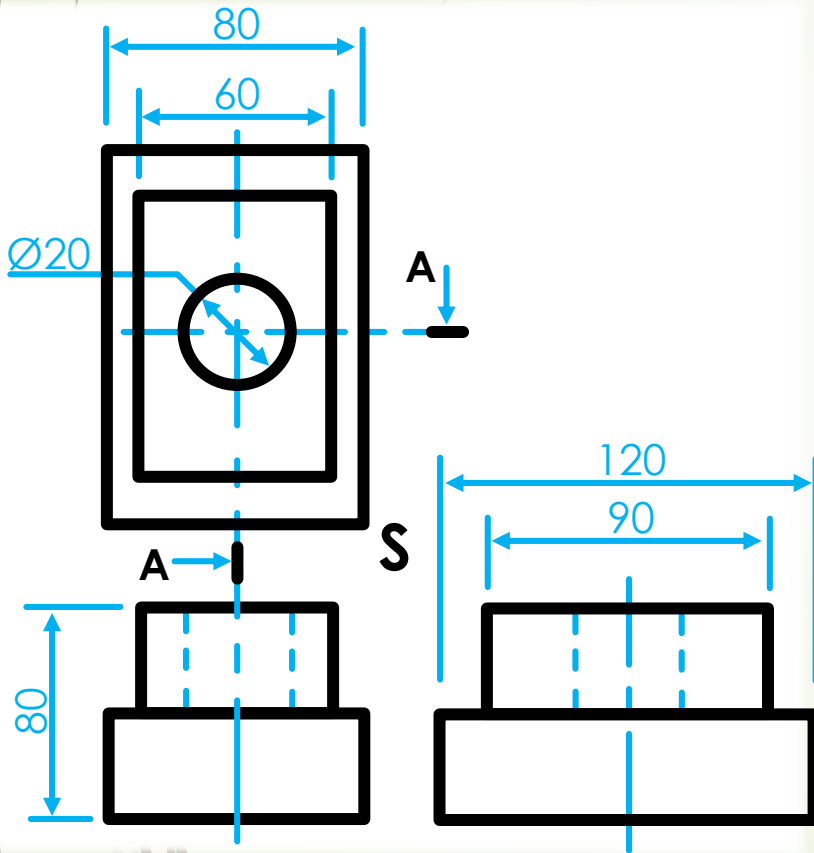
- Determine the quarter section of the front part according to section line AA.



# ISOMETRIC DRAWINGS

Step 15

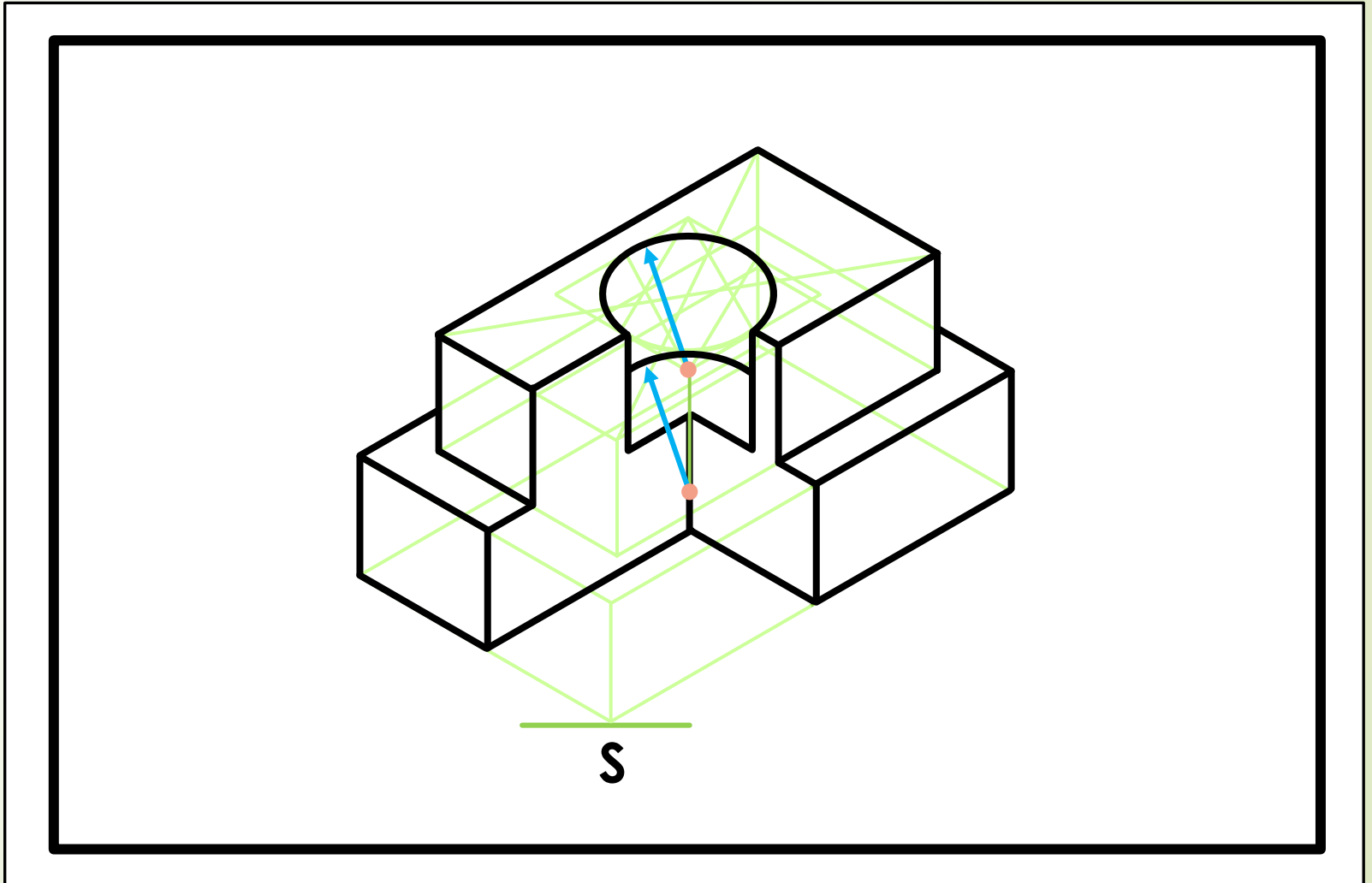
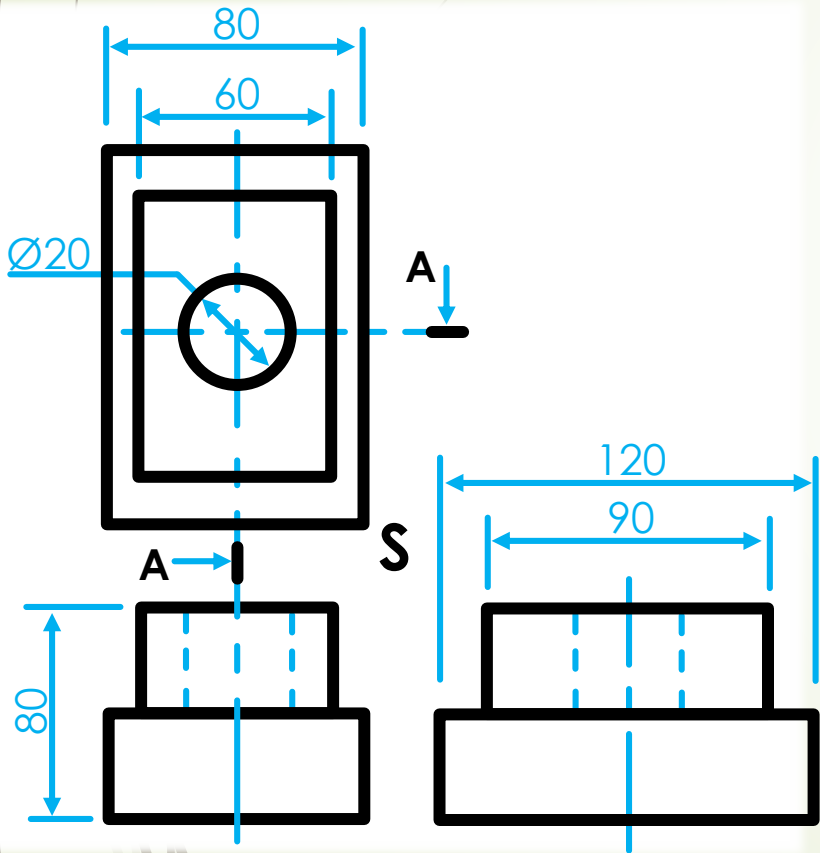
- Determine the quarter section of the front part according to section line AA.



# ISOMETRIC DRAWINGS

Step 16

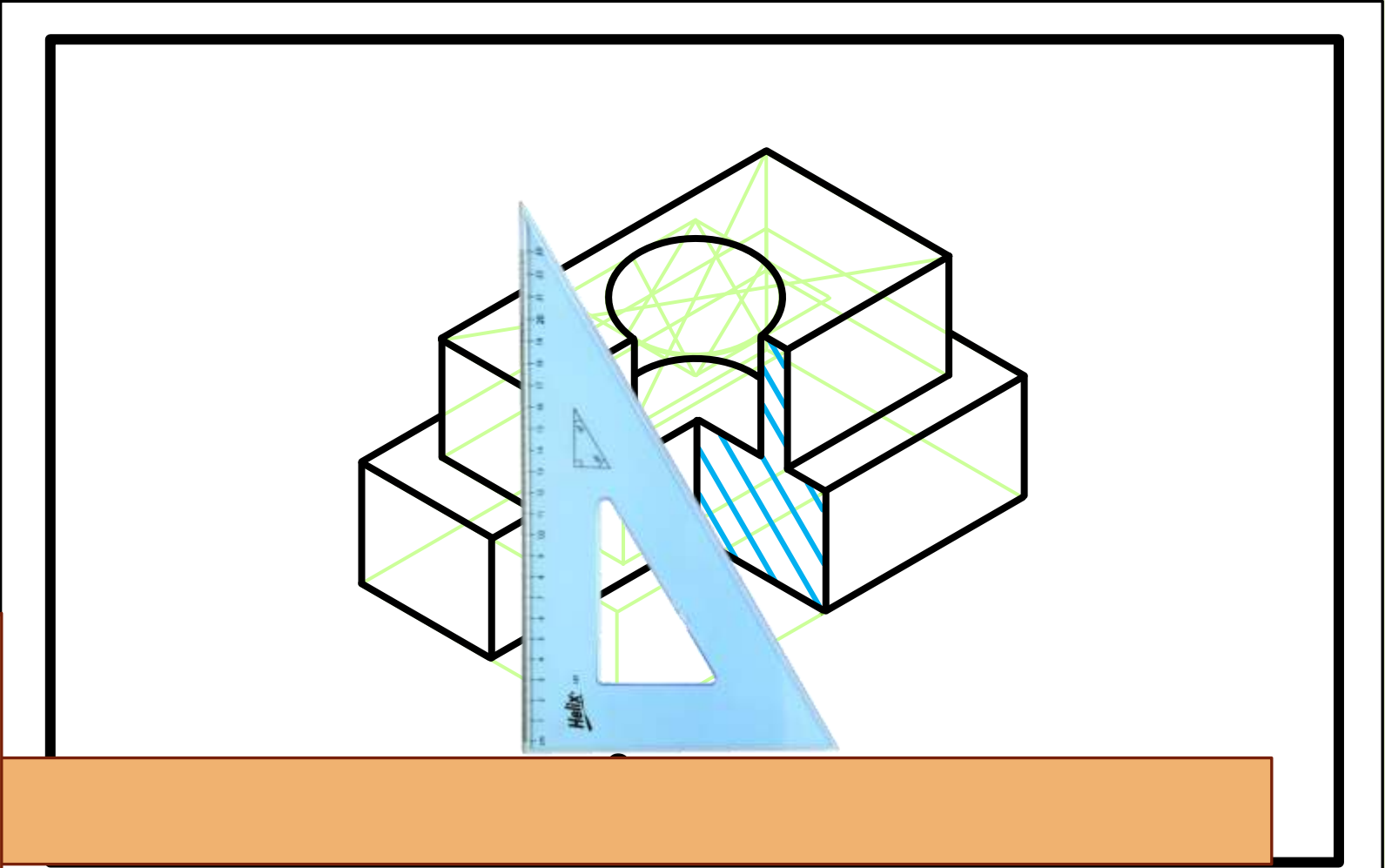
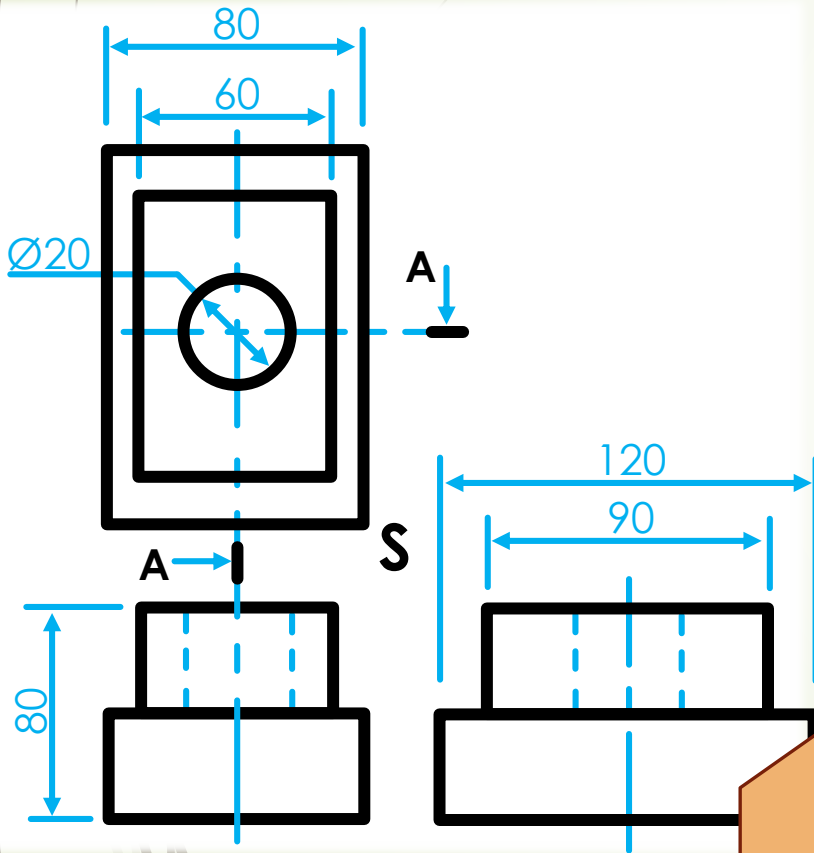
- Determine the lower circle.



# ISOMETRIC DRAWINGS

Step 17

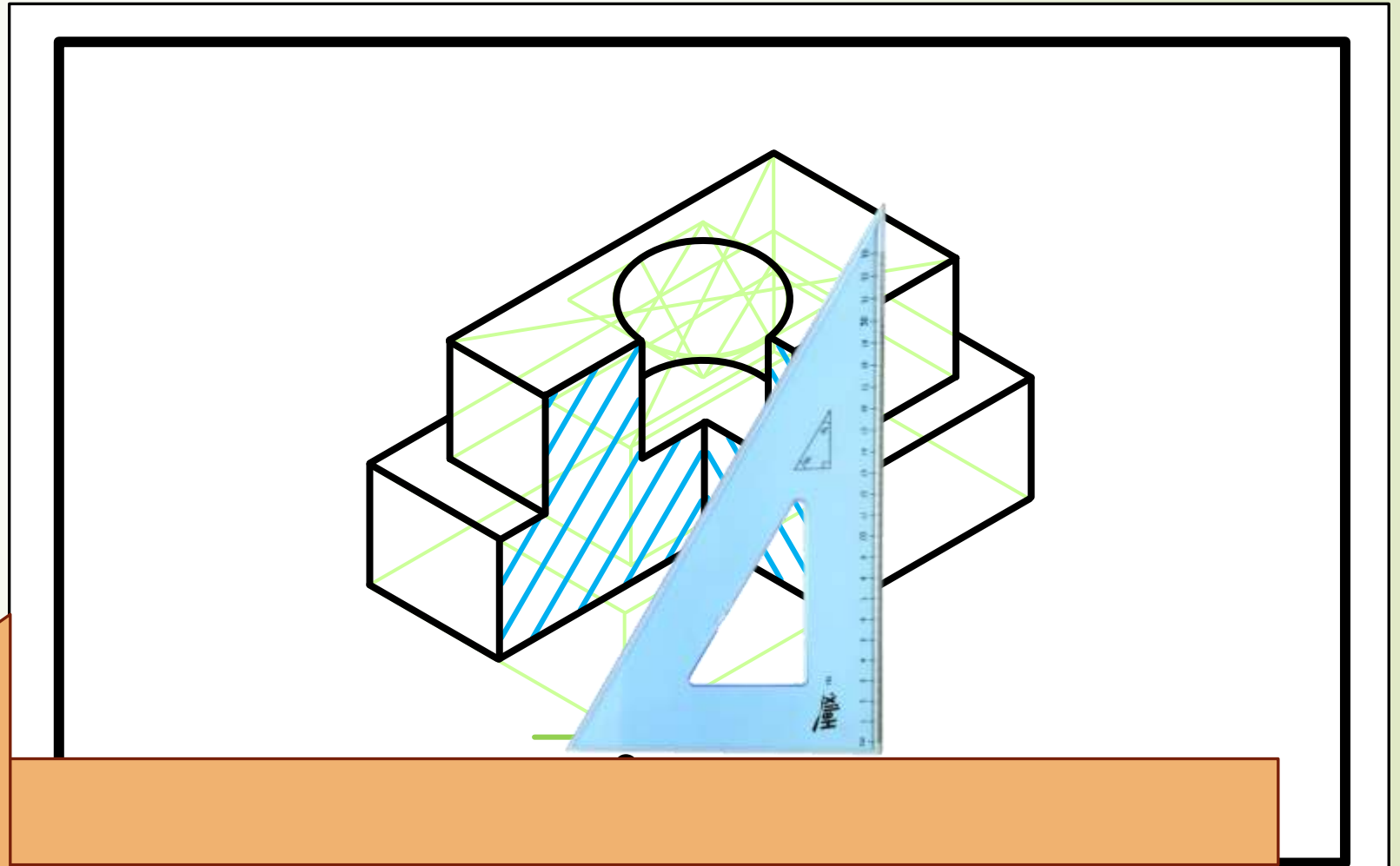
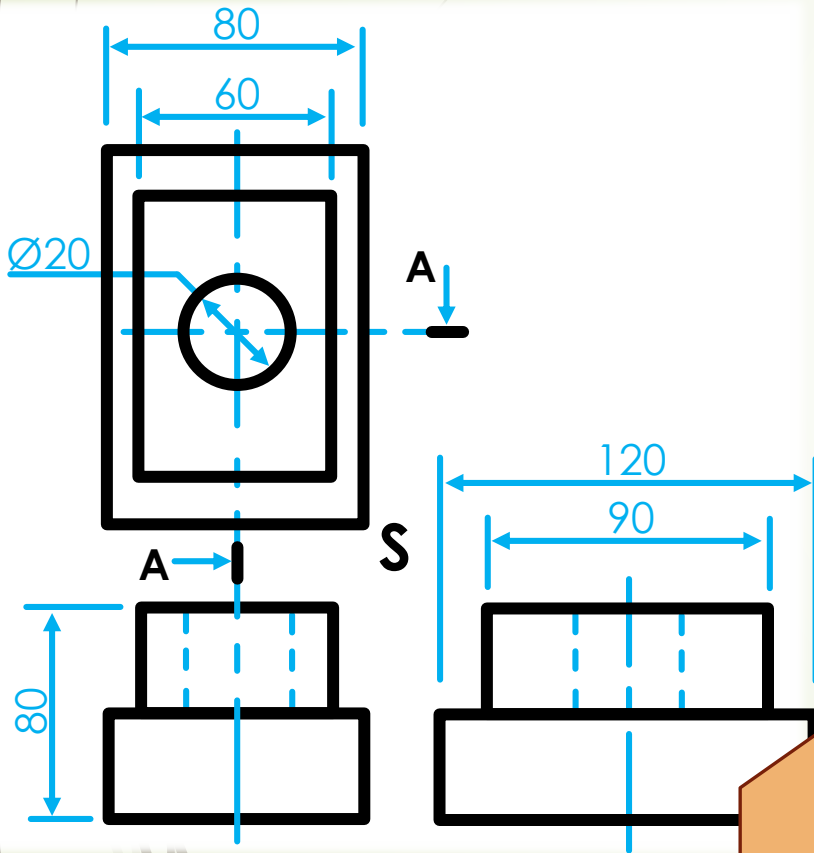
- Complete the hatch lines at 60°.



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Step 18

- Alternate the hatch lines at  $60^\circ$  to meet the middle line since the solid bottom part is adjacent to each other.



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Step 19

Complete the centre lines.

