EGD Grade 10

Geometric Constructions

Internal common arc to unequal circles

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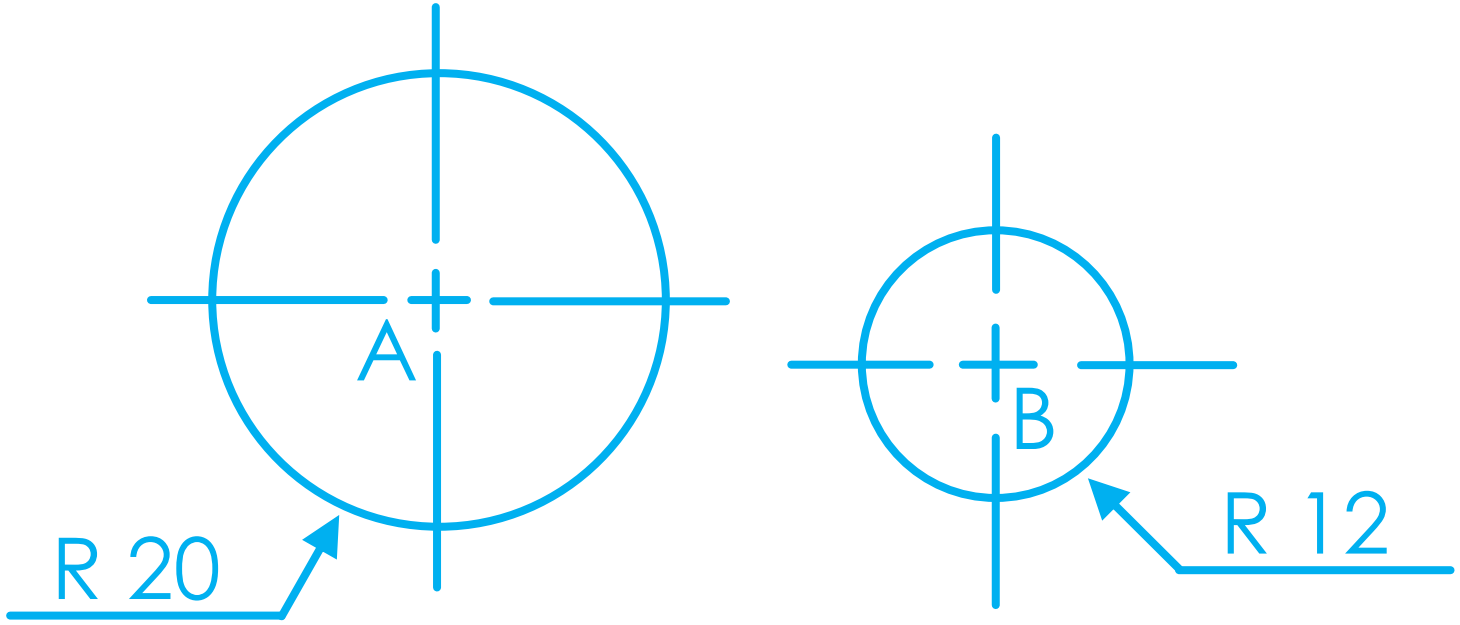
Geometric Constructions

Question

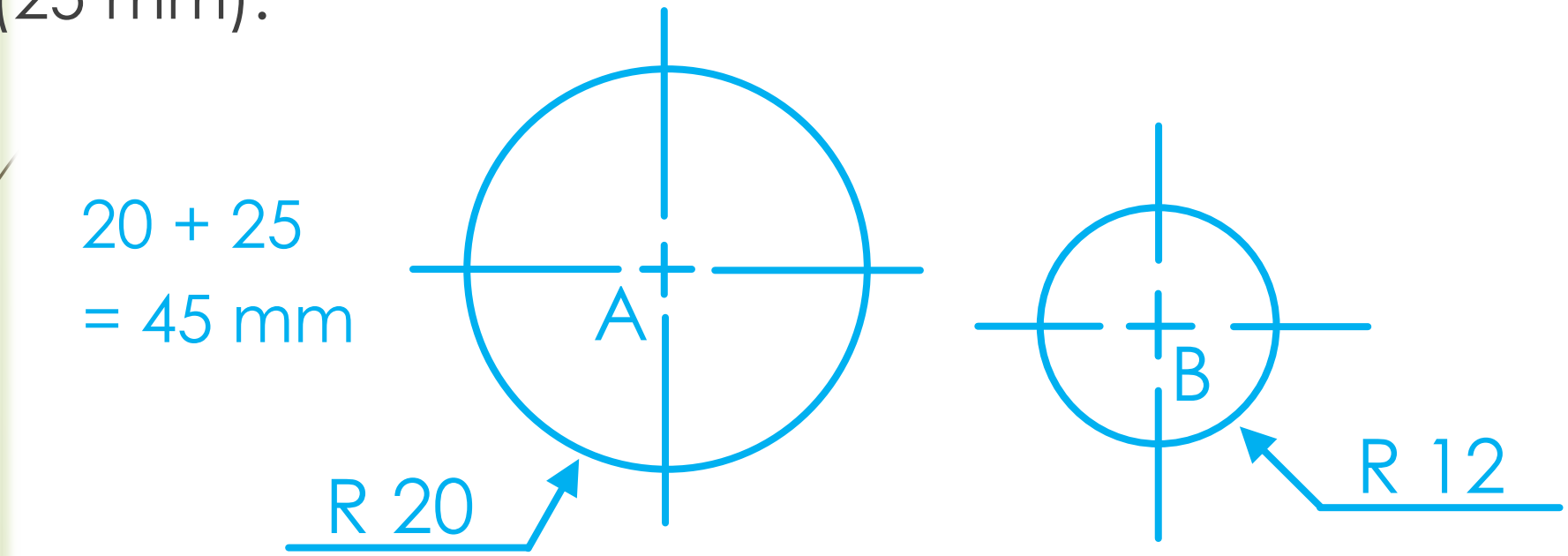
- By means of construction, draw an internal common arc with a radius of 25 mm to two unequal circles (A & B)



Geometric Constructions

Step 1

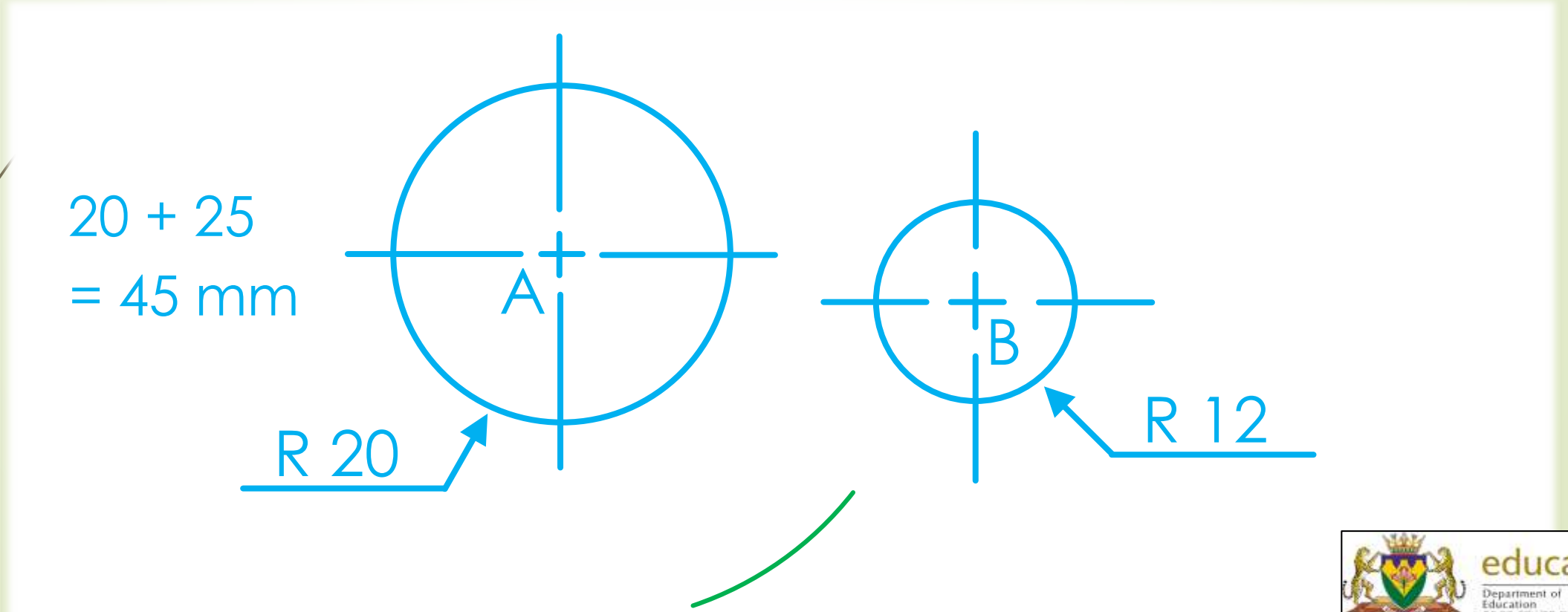
- Question: Draw an internal common arc to two unequal circles
- Add the radius of circle A (20 mm) to the radius of the arc (25 mm).



Geometric Constructions

Step 2

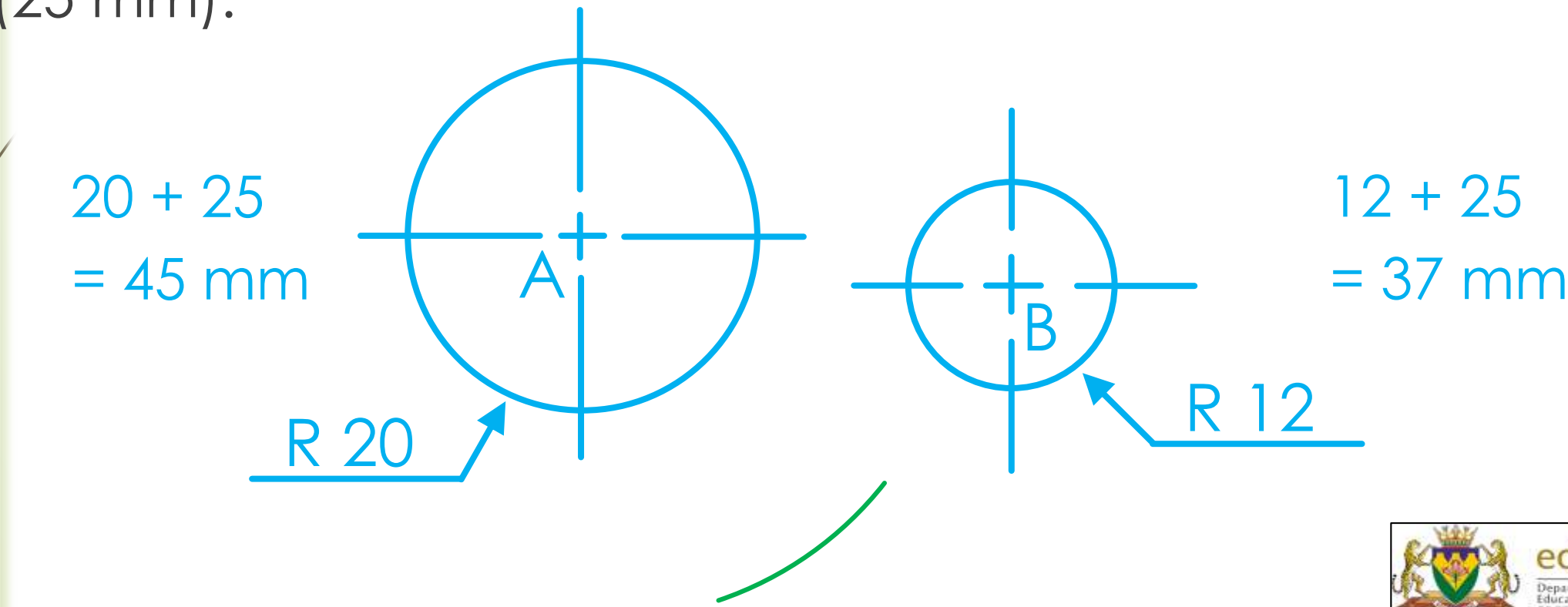
- Question: Draw an internal common arc to two unequal circles
- From the centre point A draw a semi-circle of 45 mm



Geometric Constructions

Step 3

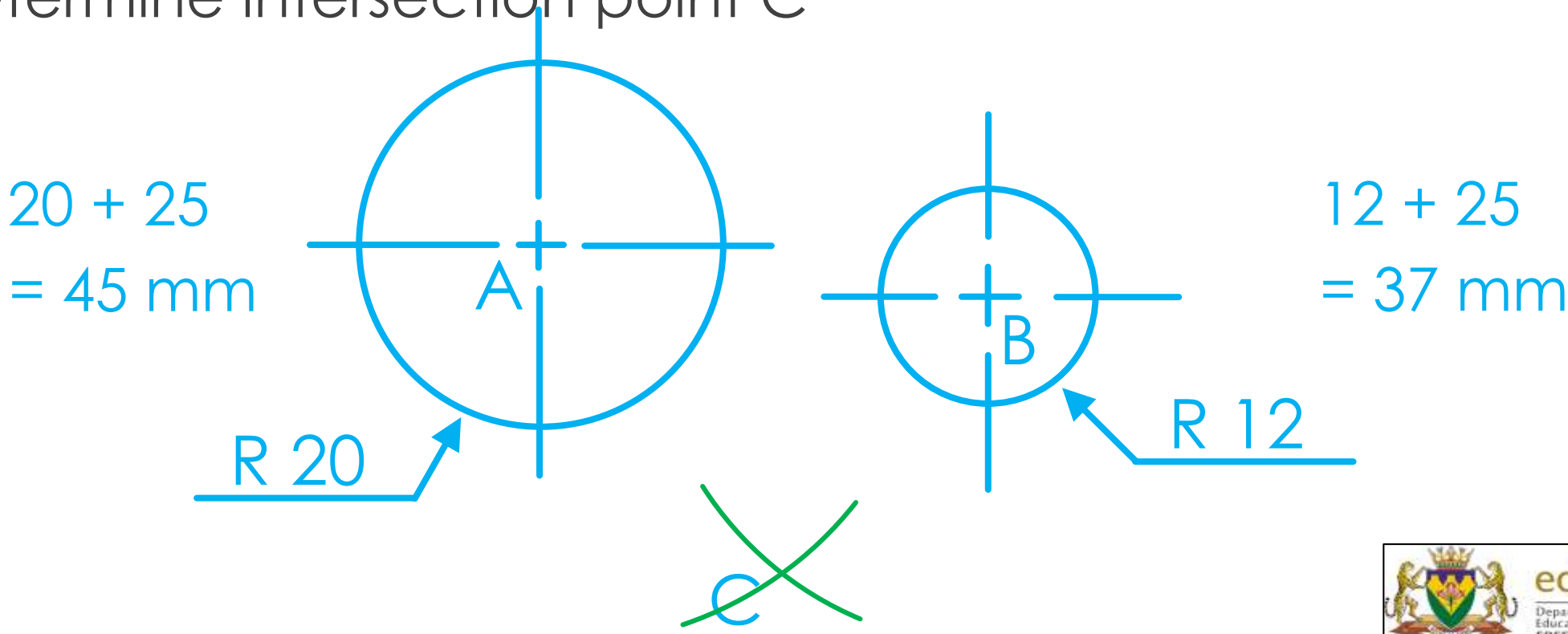
- Question: Draw an internal common arc to two unequal circles
- Add the radius of circle B (12 mm) to the radius of the arc (25 mm).



Geometric Constructions

Step 4

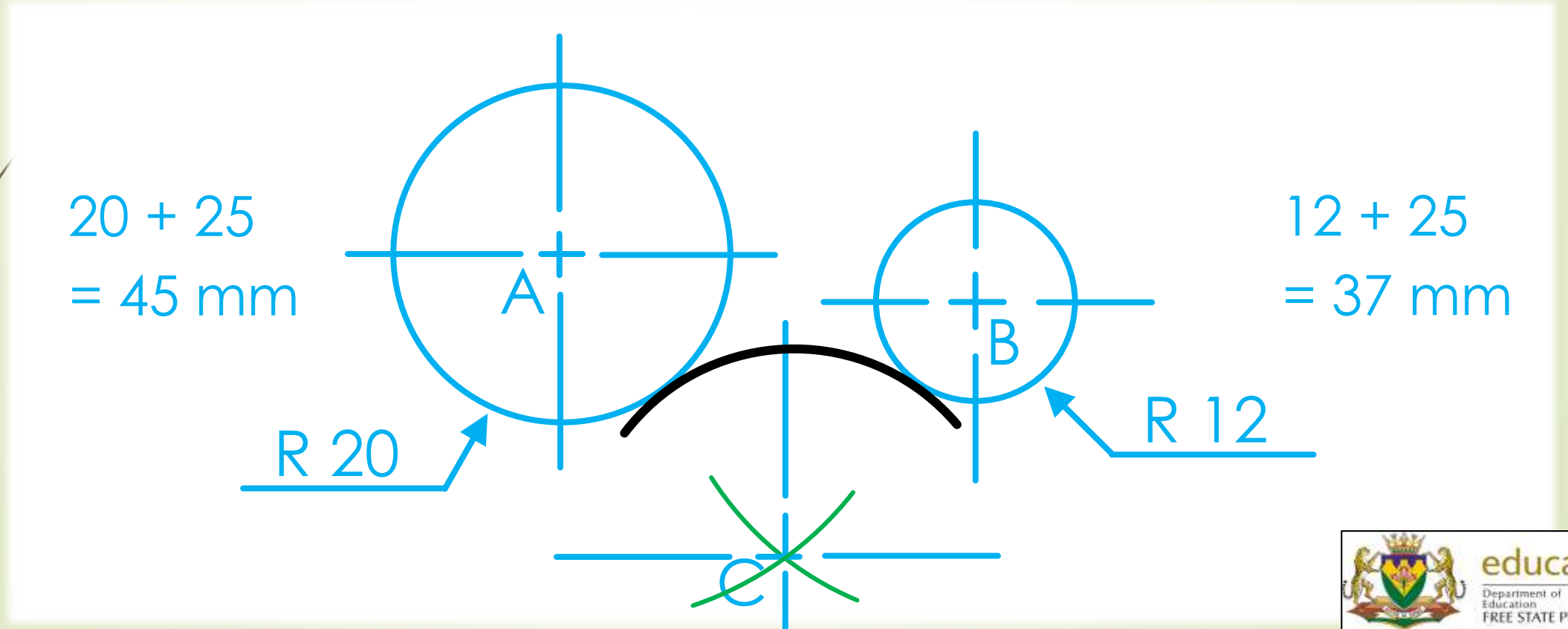
- Question: Draw an internal common arc to two unequal circles
- From centre point B draw a semi-circle of 37 mm to determine intersection point C



Geometric Constructions

Step 5

- Question: Draw an internal common arc to two unequal circles
- From point C draw an arc with a radius of 25 mm



Geometric Constructions

Task 1.7.1

- On the prepared A3 drawing sheet (Task 1.5.3), draw a circle (A) with a radius of 40 mm and circle (B) with a radius of 20 mm at 30° downwards and 100 mm to the right of point A.
- Question: **Draw an internal common arc of 35 mm to the two unequal circles.**
- Show all construction lines.
- Name this task 1.7.1

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