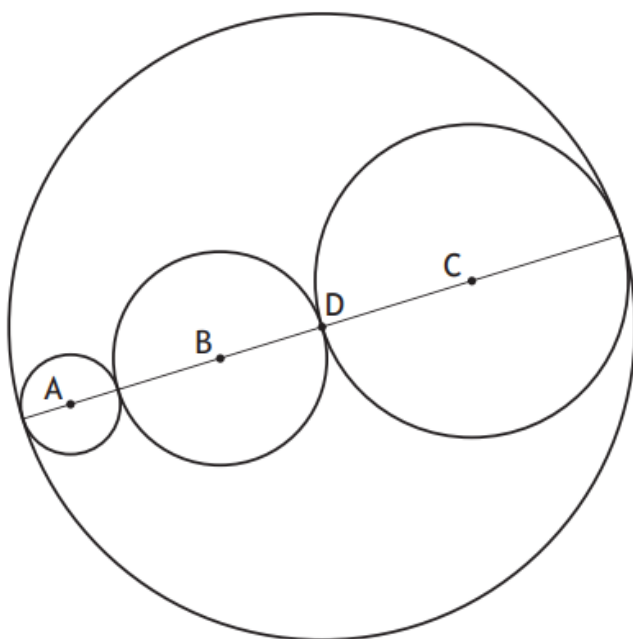




(a) Show that the points $A(-7, -2)$, $B(2, 1)$ and $C(17, 6)$ are collinear.

3

Three circles with centres A , B and C are drawn inside a circle with centre D as shown.



The circles with centres A , B and C have radii r_A , r_B and r_C respectively.

- $r_A = \sqrt{10}$
- $r_B = 2r_A$
- $r_C = r_A + r_B$

(b) Determine the equation of the circle with centre D .

4

Answers:

(a) Show that two gradients (eg. m_{AB} and m_{BC}) are equal and mention the common point.

(b) $(x-8)^2 + (y-3)^2 = 360$