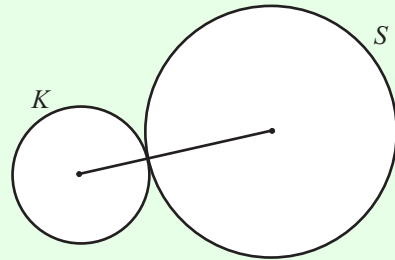


CIRCLE (Q 1, PAPER 2)

LESSON NO. 4: INTERSECTING CIRCLES

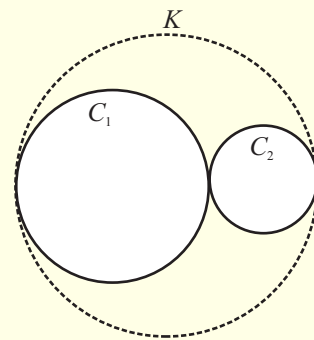
2005

- 1 (a) Circles S and K touch externally. Circle S has centre $(8, 5)$ and radius 6. Circle K has centre $(2, -3)$. Calculate the radius of K .



2003

- 1 (b) $C_1: x^2 + y^2 + 2x - 2y - 23 = 0$ and $C_2: x^2 + y^2 - 14x - 2y + 41 = 0$ are two circles.
- (i) Prove that C_1 and C_2 touch externally.
- (ii) K is a third circle. Both C_1 and C_2 touch K internally. Find the equation of K .



ANSWERS

2005 1 (a) $r = 4$

2003 1 (b) (ii) $K: (x - 2)^2 + (y - 1)^2 = 64$