

$$\pi R^2 = \pi R_1^2 + \pi R_2^2$$

$$\pi R^2 = \pi(R_1^2 + R_2^2)$$

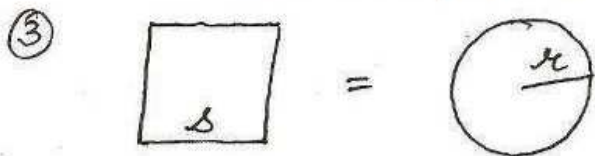
$$\Rightarrow R^2 = R_1^2 + R_2^2 \quad (B)$$

②  $2\pi R = 2\pi R_1 + 2\pi R_2$

$$\Rightarrow 2\pi R = 2\pi(R_1 + R_2)$$

$$\Rightarrow R = R_1 + R_2 \quad (A)$$

NCERT Exemplar Solutions by Dev Anoop (Bathinda)



Perimeter of Sq. = circum of  $\odot$

$$4s = 2\pi r$$

$$\Rightarrow r = \frac{4s}{2\pi}$$

$$\Rightarrow r = \frac{2s}{\pi} \dots \textcircled{1}$$

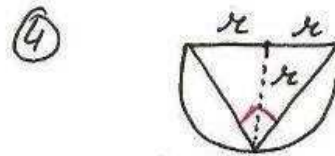
$$\frac{ar(\odot)}{ar(\text{Sq.})} = \frac{\pi r^2}{s^2}$$

$$= \frac{\pi \times \frac{4s^2}{\pi^2}}{s^2} \quad (\text{using } \textcircled{1})$$

$$= \frac{4s^2}{\pi s^2}$$

$$= \frac{4}{\pi}$$

$\therefore ar(\odot) > ar(\text{Sq.}) \quad \because 4 > \pi$   
(B)



$$ar(\Delta) = \frac{1}{2} \times 2r \times r$$

$$= r^2 \quad (A)$$

⑤ cont. from 3

$$\frac{ar(\odot)}{ar(\text{Sq.})} = 4 \div \frac{22}{7}$$

$$= 4 \times \frac{7}{22}$$

$$= \frac{14}{11}$$

$$= 14:11 \quad (B)$$

⑥ cont. from 1

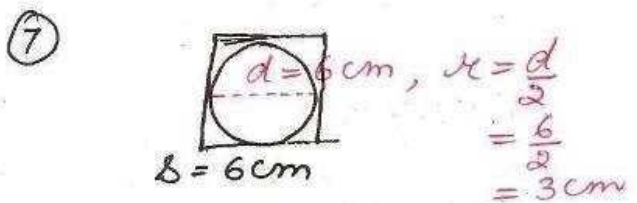
$$R^2 = 8^2 + 6^2$$

$$= 64 + 36$$

$$= 100$$

$$R = \sqrt{100}$$

$$= 10 \text{ cm} \quad (A)$$



$$ar(\odot) = \pi r^2$$

$$= \pi \times 3 \times 3$$

$$= 9\pi \quad (D)$$