E) PAG 201

N° 149

DATI

$r_1 = 12$ cm

$A_{c_2} = \frac{4}{9} A_{c_1}$

RICHIESTA

$r_2 = ?$ → $r = \sqrt{\frac{A}{\pi}}$

$A = r^2\pi$

SVOLGIMENTO

$A_{c_1} = r^2 \cdot \pi = 12^2\pi = 144\pi$ cm^2

$A_{c_2} = 144\pi \cdot \frac{4}{9} = 16 \cdot 4\pi = 64\pi$ cm^2

$r_2 = \sqrt{\frac{64\pi}{\pi}} = 8$ cm

N° 150

DATI

$C_1 = 94,2$ cm

$r_2 = \frac{3}{5} r_1$

RICHIESTA

$A_1 = ?$ → $r_1^2\pi$ → (r_1)

$A_2 = ?$ → $r_2^2\pi$ → (r_2)

SVOLGIMENTO

$r_1 = \frac{C}{2\pi} = \frac{94,2}{6,28} = 15$ cm

$A_1 = r^2\pi = 15^2\pi$ cm^2

$(225\pi = 706,5$ cm$^2)$

$r_2 = 15 \cdot \frac{3}{5} = 9$ cm

$A_2 = r_2^2\pi = 9^2\pi = 81\pi$ cm^2 $(254,34$ cm$^2)$

N° 151

DATI

$C_1 + C_2 = 188,4$ cm

$C_1 = \frac{2}{3} C_2$

RICHIESTA

$A_1 = ?$ → $r_1^2\pi$ → (r_1)

$A_2 = ?$ → $r_2^2\pi$ → (r_2)

SVOLGIMENTO

$188,4 : (2+3) \cdot 2 = 188,4 : 5 \cdot 2 = 37,68 \cdot 2 = 75,36$ cm C_1

$188,4 : (2+3) \cdot 3 = 188,4 : 5 \cdot 3 = 37,68 \cdot 3 = 113,04$ cm C_2

$r = \frac{C}{2\pi}$

$r_1 = \frac{C_1}{2\pi} = \frac{75,36}{6,28} = 12$ cm → $A_1 = r_1^2\pi = 12^2\pi = 144\pi$ cm^2

$r_2 = \frac{C_2}{2\pi} = \frac{113,04}{6,28} = 18$ cm → $A_2 = r_2^2\pi = 18^2\pi = 324\pi$ cm^2