

Flächenberechnung Aufgabe 25

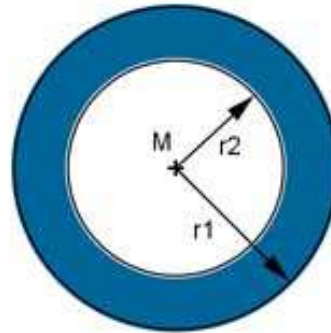
Innendurchmesser $d_2 = 4,2 \text{ dm}$; Fläche $A = 2,7632 \text{ dm}^2$.
Wie groß ist r_1 in cm?

$$r_2 = \frac{d_2}{2} = \frac{4,2 \text{ dm}}{2} = 2,1 \text{ dm}$$

$$A = \pi * (r_1^2 - r_2^2) \quad | : \pi$$

$$\frac{A}{\pi} = r_1^2 - r_2^2 \quad | + r_2^2$$

$$\frac{A}{\pi} + r_2^2 = r_1^2$$



$$r_1 = \sqrt{r_2^2 + \frac{A}{\pi}} = \sqrt{2,1^2 \text{ dm}^2 + \frac{2,7632 \text{ dm}^2}{3,14}} = 2,3 \text{ dm} = \mathbf{23 \text{ cm}}$$