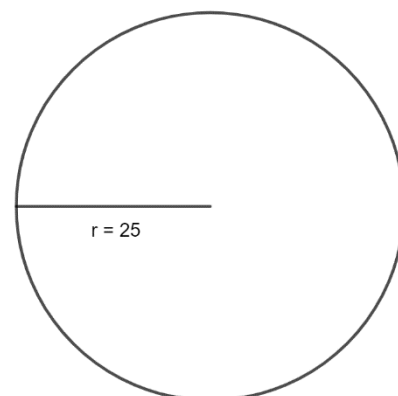


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## Opgave 173

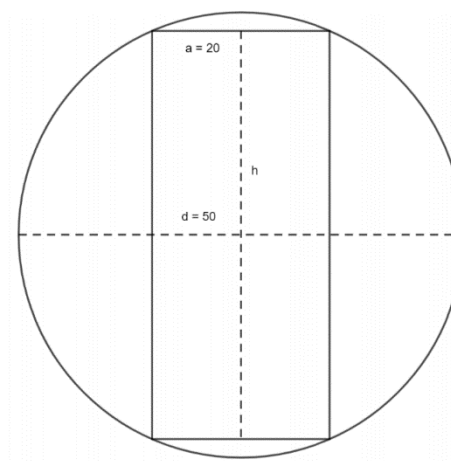
$$r = 50$$

$$\begin{aligned}
 A_{\text{før}} &= 4 \cdot \pi \cdot r^2 \\
 &= 4 \cdot \pi \cdot 25^2 \quad | \text{Indsæt tal} \\
 &= 4 \cdot \pi \cdot 625 \quad | \text{Udregn potens} \\
 &= 7853.98
 \end{aligned}$$



Opstil formel for h

$$\begin{aligned}
 h &= \sin\left(\cos^{-1}\frac{a}{d}\right) \cdot d \\
 &= \sin\left(\cos^{-1}\frac{20}{50}\right) \cdot 50 \quad | \text{Indsæt tal} \\
 &= \sin(\cos^{-1} 0.4) \cdot 50 \quad | \text{Udregn brøk} \\
 &= \sin 66.42 \cdot 50 \quad | \text{Udregn } \cos^{-1} \\
 &= 0.916 \cdot 50 \quad | \text{Udregn sin} \\
 &= 45.82 \quad | \text{Gange sammen}
 \end{aligned}$$



Opstiller formel for arealet af kuglen efter gennemboringen

$$\begin{aligned}
 A_{\text{efter}} &= \pi \cdot d \cdot h \\
 &= \pi \cdot 50 \cdot 45.82 \quad | \text{Indsæt tal} \\
 &= 7197.39 \quad | \text{Gange lortet sammen}
 \end{aligned}$$