

$$\Rightarrow 7r = 2h \quad | :7$$

$$\Rightarrow r = \frac{2h}{7} = \frac{2\sqrt{84}}{7}$$

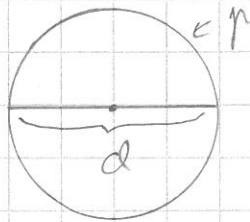
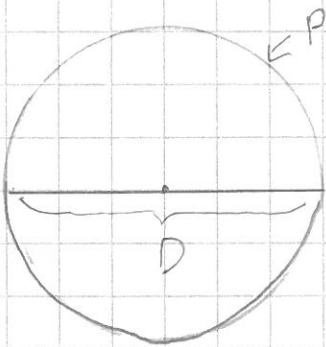
TAI: $x = 4$ (symmetria)

$$y = 10 - x = 10 - 4 = 6$$

Pythagoras: $r^2 + y^2 = (h-r)^2$

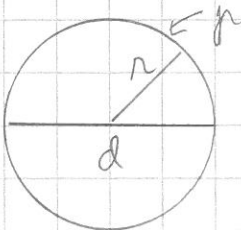
$$r = \frac{2\sqrt{84}}{7}$$

9. Ympyrän piiri ja pinta-ala



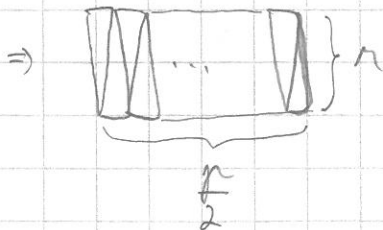
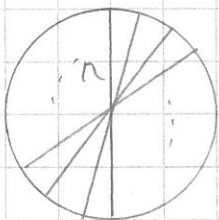
Ympyrät ovat yhdenmuotoiset

$$\frac{P}{D} = \frac{p}{d} = \text{merk. } \pi$$



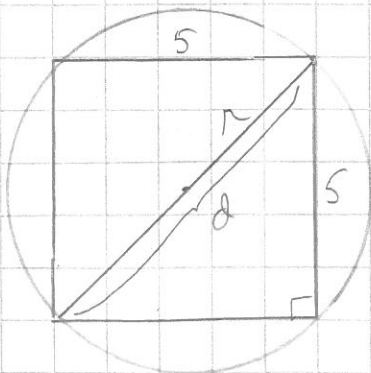
$$\begin{aligned} p &= \pi d = 2\pi r \\ A &= \pi r^2 \end{aligned}$$

KEHÄN PITUUS
PINTA-ALA



$$A = r \cdot \frac{p}{2} = r \cdot \frac{2\pi r}{2} = \pi r^2$$

9.4



Pythagoras: $5^2 + 5^2 = d^2$

$$\Rightarrow 50 = d^2 \quad | \sqrt{\quad}$$

$$\Rightarrow d = \pm \sqrt{50}$$

$$r = \frac{d}{2} = \frac{\sqrt{50}}{2}$$

$$A = \pi r^2 = \pi \cdot \left(\frac{\sqrt{50}}{2}\right)^2 = \pi \cdot \frac{(\sqrt{50})^2}{2^2} = \pi \cdot \frac{50}{4} = \frac{25\pi}{2}$$