

KPL 7 Hypotenuusan ratkaiseminen: Oikeat vastaukset

Tehtävä 2. s. 141

a) $k^2 + a^2 = p^2$ b) $j^2 + h^2 = k^2$

Tehtävä 3 s. 141

a)

$$\begin{aligned}4^2 + 3^2 &= x^2 \\x^2 &= 16 + 9 \\x^2 &= 25 \quad \parallel \sqrt{} \\x &= \sqrt{25} = 5\end{aligned}$$

b)

$$\begin{aligned}5^2 + 12^2 &= x^2 \\x^2 &= 25 + 144 \\x^2 &= 169 \quad \parallel \sqrt{} \\x &= \sqrt{169} \\x &= 13\end{aligned}$$

Tehtävä 4. s. 141

a) $40^2 + 30^2 = x^2$

$$\begin{aligned}x^2 &= 1600 + 900 \\x^2 &= 2500 \quad \parallel \sqrt{} \\x &= \sqrt{2500} \\x &= 50\end{aligned}$$

b) $40^2 + 9^2 = x^2$

$$\begin{aligned}x^2 &= 1600 + 81 \\x^2 &= 1681 \quad \parallel \sqrt{} \\x &= \sqrt{1681} \\x &= 41\end{aligned}$$

Tehtävä 5. s. 141

a)

$$\begin{aligned}9^2 + 9^2 &= x^2 \\x^2 &= 81 + 81 \\x^2 &= 162 \quad \parallel \sqrt{} \\x &= \sqrt{162} \\x &= 12,7279\dots \approx 12,7\end{aligned}$$

b)

$$\begin{aligned}15^2 + 17^2 &= x^2 \\x^2 &= 225 + 289 \\x^2 &= 514 \quad \parallel \sqrt{} \\x &= \sqrt{514} \\x &= 22,671\dots \approx 22,7\end{aligned}$$

Tehtävä 6. s. 141

$$\begin{aligned}(580m)^2 + (450m)^2 &= x^2 \quad \parallel \sqrt{} \\x &= \sqrt{(580m)^2 + (450m)^2} \\x &= 734,098\dots m \approx 730m\end{aligned}$$

Tehtävä 9. s.141

$$(670m)^2 + (360m)^2 = x^2 \quad || \sqrt{\quad}$$

$$x = \sqrt{(670m)^2 + (360m)^2}$$

$$x = 760,591\dots m \approx 760m$$