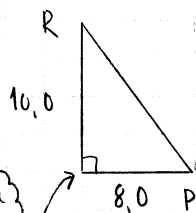
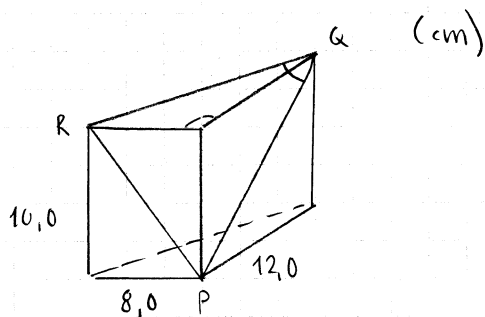


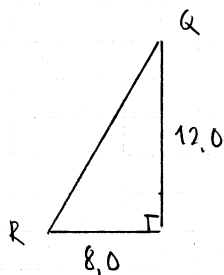
4255



$$PR^2 = 10,0^2 + 8,0^2$$

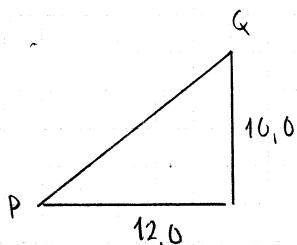
$$PR = \sqrt{164}$$

Rakt prisma innebär att denna vinkel är rät



$$QR^2 = 12,0^2 + 8,0^2$$

$$QR = \sqrt{208}$$



$$PQ^2 = 10,0^2 + 12,0^2$$

$$PQ = \sqrt{244}$$

Låt $\triangle PQR$ vara \sphericalangle . Cosinussatsen ger

$$PR^2 = QR^2 + PQ^2 - 2 \cdot QR \cdot PQ \cdot \cos \sphericalangle$$

$$164 = 208 + 244 - 2 \cdot \sqrt{208 \cdot 244} \cos \sphericalangle$$

$$\cos \sphericalangle = \frac{288}{2 \sqrt{208 \cdot 244}}$$

$$\left(\begin{aligned} 208 \cdot 244 &= 4 \cdot 52 \cdot 4 \cdot 61 \\ &= 4 \cdot 4 \cdot 13 \cdot 4 \cdot 61 \end{aligned} \right)$$

$$\cos \sphericalangle = \frac{288}{2 \cdot 4 \cdot 2 \sqrt{13 \cdot 61}}$$

$$\cos \sphericalangle = \frac{18}{\sqrt{13 \cdot 61}} \Rightarrow \sphericalangle = \arccos \frac{18}{\sqrt{13 \cdot 61}} \approx 50,3^\circ$$

Svar: $50,3^\circ$