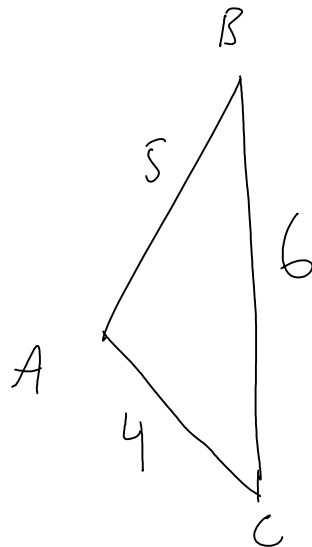


Principfigur:



Cosinussatsen ger

$$1) \quad 6^2 = 5^2 + 4^2 - 2 \cdot 5 \cdot 4 \cdot \cos A$$

$$\Leftrightarrow$$

$$\cos A = \frac{6^2 - 5^2 - 4^2}{-2 \cdot 5 \cdot 4} = \frac{1}{8}$$

$$\Leftrightarrow$$

$$A \approx 82,8192$$

2)

$$4^2 = 6^2 + 5^2 - 2 \cdot 6 \cdot 5 \cdot \cos B$$

$$\Leftrightarrow$$

$$\cos B = \frac{4^2 - 6^2 - 5^2}{-2 \cdot 6 \cdot 5} = \frac{3}{4}$$

..

\Leftrightarrow

$$B \approx 41,4096$$

Verkar som $A = 2B!$

Vi ser att $A = 2B \Leftrightarrow \cos A = \cos 2B$

och undersöker det sistnämnda.

$$\cos 2B = 2\cos^2 B - 1 = 2 \cdot \left(\frac{3}{4}\right)^2 - 1 = \frac{18}{16} - 1 = \frac{2}{16} = \frac{1}{8}$$

//
 $\cos A$

Ok!