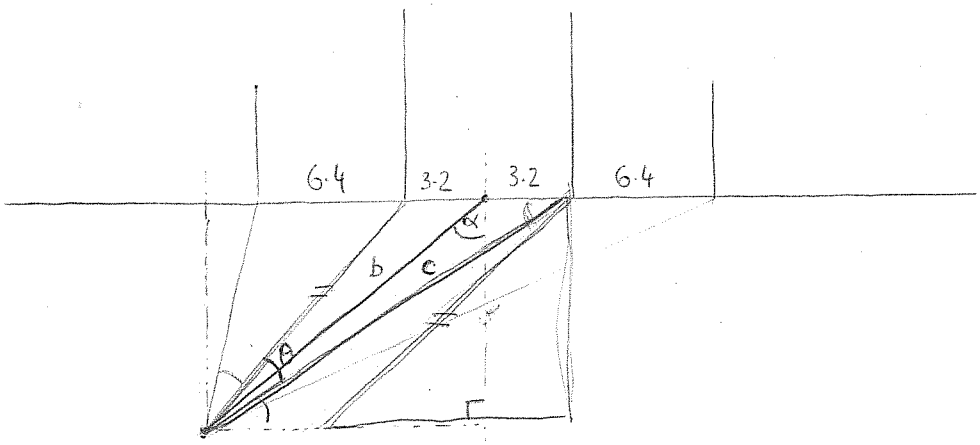
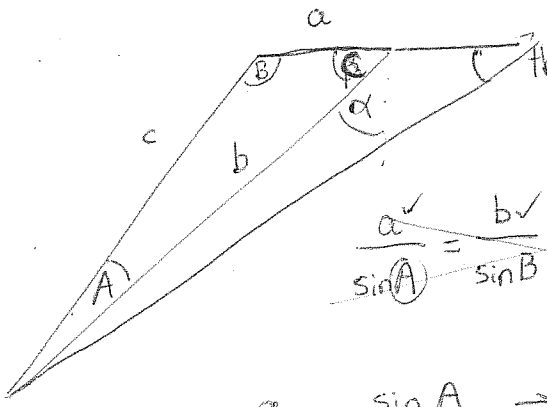




$C = 90 - \alpha$

$c^2 = a^2 + b^2 - 2ab\cos C$

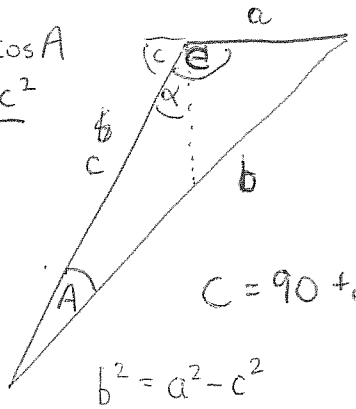
then $a^2 = b^2 + c^2 - 2bc\cos A$

$\Rightarrow \cos A = \dfrac{a^2 - b^2 - c^2}{2bc}$

3 eqns,

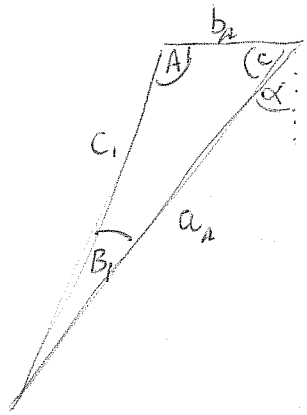
$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

$$\frac{a}{b} = \frac{\sin A}{\sin B} \Rightarrow A = \sin^{-1}\left(\frac{a \cdot \sin B}{\sin A}\right)$$



$C = 90 + \alpha$

$b^2 = a^2 - c^2$



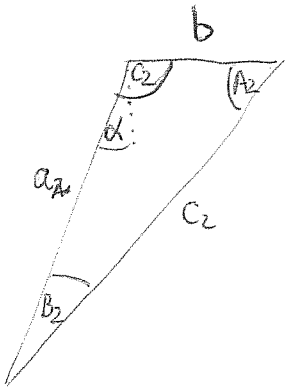
$c_1^2 = a^2 + b^2 - 2ab\cos C$

~~$\cos B =$~~

$b^2 = c^2 + a^2 - 2ca\cos B$

$$B_1 = a\cos\left(\frac{b^2 - c^2 - a^2}{-2ca}\right)$$

$$B_1 = a\cos\left(\frac{a^2 - b^2 + c^2}{2ac}\right)$$



$b^2 = a^2 + c^2 - 2ac\cos B_2$

$$B_2 = a\cos\left(\frac{a^2 - b^2 + c^2}{2ac}\right)$$

$c_2^2 =$