

4

a)



$$\sin 30 = \frac{1}{2}$$

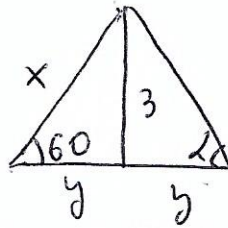
$$\frac{1}{2} = \frac{\sqrt{2}}{x}$$

$$\boxed{x = 2\sqrt{2}}$$

$$\alpha = \arccos \frac{\sqrt{2}}{2\sqrt{2}}$$

$$\alpha = \arccos \frac{1}{2}$$

$$\boxed{\alpha = 60^\circ}$$



$$\sin 60 = \frac{\sqrt{3}}{2} = \frac{3}{x}$$

$$x = \frac{6}{\sqrt{3}} = \frac{6\sqrt{3}}{3}$$

$$\boxed{x = 2\sqrt{3}}$$

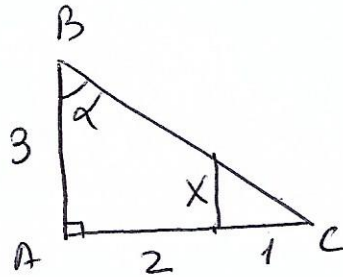
$$\cos 60 = \frac{1}{2} = \frac{y}{2\sqrt{3}}$$

$$y = \frac{2\sqrt{3}}{2}$$

$$\boxed{y = \sqrt{3}}$$

$$\alpha = \arctan \sqrt{3}$$

$$\boxed{\alpha = 60^\circ}$$



$$\alpha = \arctan 1$$

$$\boxed{\alpha = 45^\circ}$$

$$\hat{C} = 45 \quad \tan 45 = 1 \Rightarrow \boxed{x = 1}$$