

(2)

$$(3) \quad 4 \cos^2 x - 4 \sin^2 x = 1 - 3 \cos x$$

$$4 \cos^2 x - 4(1 - \cos^2 x) = 1 - 3 \cos x$$

$$4 \cos^2 x - 4 + 4 \cos^2 x = 1 - 3 \cos x$$

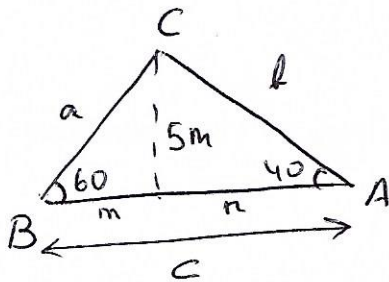
$$8 \cos^2 x + 3 \cos x - 5 = 0$$

$$x = \frac{-3 \pm \sqrt{9+160}}{16} = \frac{-3 \pm 13}{16} = \begin{cases} 5/8 \\ -1 \end{cases}$$

$$x = \arccos \frac{5}{8} \quad \left. \begin{array}{l} x_1 = 51^\circ 19' 4'' + 360k \quad k \in \mathbb{Z} \\ x_2 = 308^\circ 40' 56'' + 360k \quad k \in \mathbb{Z} \quad (x_2 = -51^\circ 19') \end{array} \right\}$$

$$x = \arccos -1 \quad x_3 = 180^\circ + 360k$$

(4)



$$\sin 60^\circ = \frac{\sqrt{3}}{2} = \frac{5}{a} \quad a = \frac{10}{\sqrt{3}} = \frac{10\sqrt{3}}{3}$$

$$\boxed{a = 5,77 \text{ m}}$$

$$\cos 60^\circ = \frac{1}{2} = \frac{m}{10\sqrt{3}/3}$$

$$m = \frac{10\sqrt{3}}{6} = \frac{5}{3}\sqrt{3}$$

$$\boxed{m = 2,88 \text{ m}}$$

$$\sin 40^\circ = 0,64 = \frac{5}{b}$$

$$b = \frac{5}{0,64} \quad \boxed{b = 7,78}$$

$$\cos 40^\circ = 0,77 = \frac{n}{b}$$

$$n = 0,77 \cdot 7,78 = 5,98 \quad \boxed{n = 5,98}$$

$$\text{Cable} = 5,77 + 7,78 = 13,55 \text{ m}$$

$$\text{Distance entre A y B} : 2,88 + 5,98 = \underline{\underline{8,86 \text{ m}}}$$