

$$a^2 + b^2 = c^2$$

a) $x^2 + 1,9^2 = 3,4^2$

$$x^2 + 3,61 = 11,56 \quad || -3,61$$

$$x^2 = 7,95$$

$$x = \pm \sqrt{7,95}$$

$$x = 2,81...$$

$$x \approx 2,8$$

b) $8^2 + 13^2 = x^2$

$$64 + 169 = x^2$$

$$233 = x^2$$

$$x = \sqrt{233}$$

$$x = 15,26..$$

$$x \approx 15$$

c) $5^2 + x^2 = 9^2$

$$25 + x^2 = 81 \quad || -25$$

$$x^2 = 56$$

$$x = \sqrt{56}$$

$$x = 7,483...$$

$$x \approx 7,5$$

d) $7^2 + 7^2 = x^2$

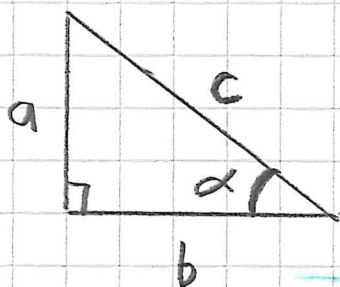
$$49 + 49 = x^2$$

$$98 = x^2$$

$$x = \sqrt{98}$$

$$x = 9,89...$$

$$x \approx 10$$



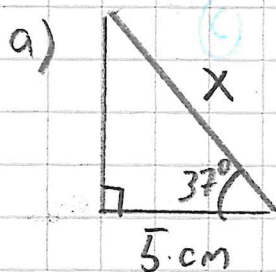
a vastainen kateetti
b viereinen kateetti
c hypotenuusa

$$\sin \alpha = \frac{a}{c}$$

$$\cos \alpha = \frac{b}{c}$$

$$\tan \alpha = \frac{a}{b}$$

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$$\cos 37^\circ = \frac{5}{X} \quad || \cdot X$$

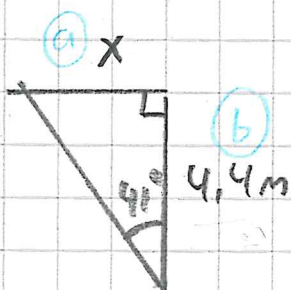
$$0,799 \cdot X = 5 \quad || : 0,799$$

$$X = \frac{5}{0,799}$$

$$X = 6,25...$$

$$X \approx 6 \text{ cm} \quad (6,3 \text{ cm})$$

b)



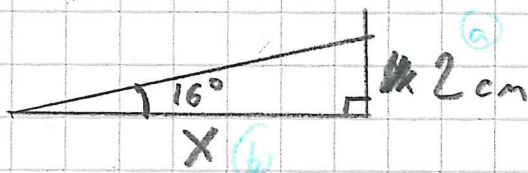
$$\tan 41^\circ = \frac{X}{4,4} \quad || \cdot 4,4$$

$$0,869 \cdot 4,4 = X$$

$$X = 3,82...$$

$$X \approx 3,8 \text{ m}$$

c)



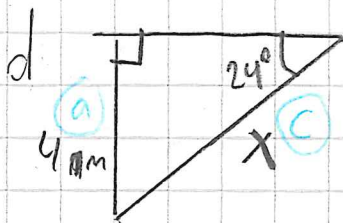
$$\tan 16^\circ = \frac{2}{X} \quad || \cdot X$$

$$0,287 \cdot X = 2 \quad || : 0,287$$

$$X = \frac{2}{0,287}$$

$$X = 6,96...$$

$$X \approx 7 \text{ cm}$$



$$\sin 24^\circ = \frac{4}{x} \quad || \cdot x$$

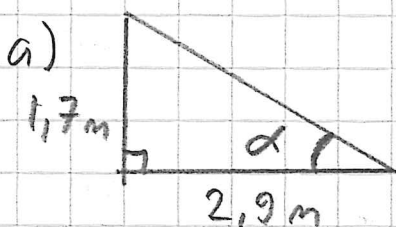
$$0,407 \cdot x = 4 \quad || : 0,407$$

$$x = \frac{4}{0,407}$$

$$x = 9,82...$$

$$x \approx 10 \text{ m} \quad \text{tai} \approx 9,8 \text{ m}$$

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$$\tan \alpha = \frac{1,7}{2,9}$$

$$\tan \alpha \approx 0,586$$

$$\alpha \approx 30^\circ$$

b)

$$\tan \alpha = \frac{12,5}{18}$$

$$\tan \alpha \approx 0,694$$

$$\alpha \approx 35^\circ$$