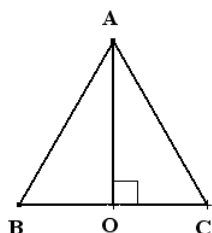


:

$$909\ 526 \quad p = 2^{3021377} - 1 \quad p \quad (76)$$



:

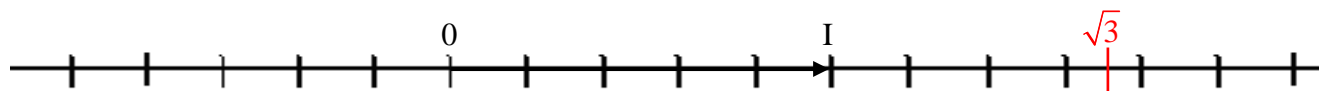
O

AOC

$$AO^2 = AC^2 - OC^2 = 2^2 - 1^2 = 4 - 1 = 3$$

$$AO^2 = 3 \Leftrightarrow AO = \sqrt{3}$$

2. ABC (77)
 [BC] [AO] ■
 [AO] ABC ■
 AOC ■



$$39 = 3 \times 13$$

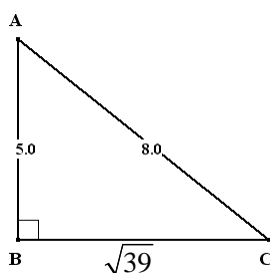
$$39 = (a - b) \times (a + b) \left\{ \begin{array}{l} a - b = 3 \\ a + b = 13 \end{array} \right\} \Leftrightarrow \left\{ \begin{array}{l} a = 8 \\ b = 5 \end{array} \right.$$

$$39 = (8 - 5) \times (8 + 5) = 8^2 - 5^2 \Leftrightarrow \sqrt{39} = \sqrt{8^2 - 5^2}$$

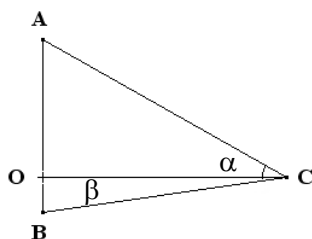
8cm

 $\sqrt{39}$ $\sqrt{39}$

5cm



(78)



- $\tan \alpha = \frac{AO}{OC} \Leftrightarrow AO = \tan \alpha \times OC = \tan 30^\circ \times 64,3 = 0,577 \times 64,3 = 37,1 \text{ m}.$
- $\tan \beta = \frac{OB}{OC} \Leftrightarrow OB = \tan \beta \times OC = \tan 2,45^\circ \times 64,3 = 0,042 \times 64,3 = 2,7 \text{ m}.$
- $AC = AO + OB = 37,1 + 2,7 = 39,8 \approx 40 \text{ m}.$

.40 m

(79)

.	L	:	R1	▪
.L-1	1	:	R2	▪
.	$\frac{L}{1} = \frac{1}{L-1}$:	R1 R2	▪

- $c = \frac{L}{1} \Leftrightarrow L = c \times 1$

$$\frac{L}{1} = \frac{1}{L-1} \Leftrightarrow \frac{c \times 1}{1} = \frac{1}{c \times 1 - 1}$$

$$\Leftrightarrow (c \times 1)(c \times 1 - 1) = 1^2$$

$$\Leftrightarrow c^2 \times 1^2 - c \times 1^2 = 1^2$$

$$\Leftrightarrow 1^2(c^2 - c) = 1^2$$

$$\Leftrightarrow c^2 - c = \frac{1^2}{1^2}$$

$$\Leftrightarrow c^2 - c = 1 \Leftrightarrow c^2 - c - 1 = 0$$

- $\left(c - \frac{1}{2}\right)^2 = \frac{5}{4} \Leftrightarrow c^2 + \frac{1}{4} - 2 \times \frac{1}{2} \times c = \frac{5}{4} \Leftrightarrow c^2 + \frac{1}{4} - c - \frac{5}{4} = 0 \Leftrightarrow c^2 - c - 1 = 0 \Leftrightarrow 0 = 0$

- $\left(c - \frac{1}{2}\right)^2 = \frac{5}{4} \Leftrightarrow \left(c - \frac{1}{2}\right)^2 - \left(\frac{\sqrt{5}}{2}\right)^2 = 0 \Leftrightarrow \left[\left(c - \frac{1}{2}\right) - \frac{\sqrt{5}}{2}\right] \left[\left(c - \frac{1}{2}\right) + \frac{\sqrt{5}}{2}\right] = 0$

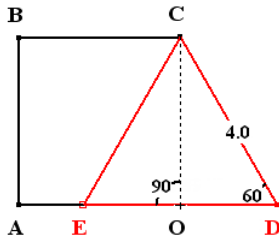
$$\Leftrightarrow \begin{cases} \left(c - \frac{1}{2}\right) - \frac{\sqrt{5}}{2} = 0 \\ \left(c - \frac{1}{2}\right) + \frac{\sqrt{5}}{2} = 0 \end{cases} \Leftrightarrow \begin{cases} c - \frac{1}{2} = \frac{\sqrt{5}}{2} \\ c - \frac{1}{2} = -\frac{\sqrt{5}}{2} \end{cases} \Leftrightarrow \begin{cases} c = \frac{1}{2} + \frac{\sqrt{5}}{2} \\ c = \frac{1}{2} - \frac{\sqrt{5}}{2} \end{cases} \Leftrightarrow \begin{cases} c = \frac{1+\sqrt{5}}{2} \\ c = \frac{1-\sqrt{5}}{2} \end{cases}$$

$$\frac{1+\sqrt{5}}{2} > 0$$

$$.c = \frac{1+\sqrt{5}}{2} :$$

$$. \frac{1-\sqrt{5}}{2} < 0 \Leftrightarrow 1 - \sqrt{5} < 0 \Leftrightarrow 1 < \sqrt{5} :$$





$$\hat{D} = 60^\circ \quad CD = 4\text{cm}$$

$$CD = DE = EC = 4\text{cm}$$

$$[ED] \quad [ED]$$

$$ABCD \quad (80)$$

$$CDE$$

$$O$$

■

■

$$: \quad [CO] \quad CDE \quad \square$$

$$EO = OD = 2\text{cm}$$

$$: \quad O \quad COD \quad [ED] \quad [CO] \quad \square$$

$$CO = 3,4 \text{ cm} \quad CO^2 = CD^2 - OD^2 = 4^2 - 2^2 = 16 - 4 = 12 \quad CD^2 = CO^2 + OD^2$$

$$BC = AO \quad AB = CO = 3,4\text{cm} : \quad ABCO \quad \hat{A} = \hat{B} = \hat{O} = 90^\circ \quad \square$$

$$P1 = CD + DE + EC = 12\text{cm} \quad CDE \quad P1 \quad \square$$

$$ABCE \quad P2 \quad \square$$

$$\square \quad P2 = AB + BC + CE + AE$$

$$P2 = AB + AO + CE + AE$$

$$P2 = 3,4 + AE + 2 + 4 + AE$$

$$P2 = 2AE + 9,4$$



$$\square \quad P1 = P2 \Leftrightarrow P2 = 12 \Leftrightarrow 2AE + 9,4 = 12 \Leftrightarrow 2AE = 12 - 9,4 = 2,6 \Leftrightarrow AE = 1,3\text{cm}.$$

$$BC = a; AC = b; AB = c$$

$$A$$

$$ABC \quad (81)$$

$$S1 = \frac{bc}{2} : ABC \quad S1 \quad \square$$

$$S2 = \frac{\pi \times \left(\frac{c}{2}\right)^2}{2} = \frac{\pi \times \frac{c^2}{4}}{2} = \frac{\pi \times c^2}{8} : [AB] \quad S2 \quad \square$$

$$S3 = \frac{\pi \times \left(\frac{a}{2}\right)^2}{2} = \frac{\pi \times \frac{a^2}{4}}{2} = \frac{\pi \times a^2}{8} : [BC] \quad S3 \quad \square$$

$$S4 = \frac{\pi \times \left(\frac{b}{2}\right)^2}{2} = \frac{\pi \times \frac{b^2}{4}}{2} = \frac{\pi \times b^2}{8} : [AC] \quad S4 \quad \square$$

$$: \quad S \quad \square$$

$$S = S1 + S2 + S4 - S3 = \frac{bc}{2} + \frac{\pi \times c^2}{8} + \frac{\pi \times b^2}{8} - \frac{\pi \times a^2}{8} = \frac{4bc + \pi(c^2 + b^2 - a^2)}{8}$$

$$:$$

$$A$$

$$ABC \quad \square$$

$$: \quad BC^2 = AB^2 + AC^2 \Leftrightarrow a^2 = c^2 + b^2$$

$$S = \frac{4bc + \pi(a^2 - a^2)}{8} = \frac{4bc}{8} = \frac{bc}{2}$$

$$.ABC \quad \square$$