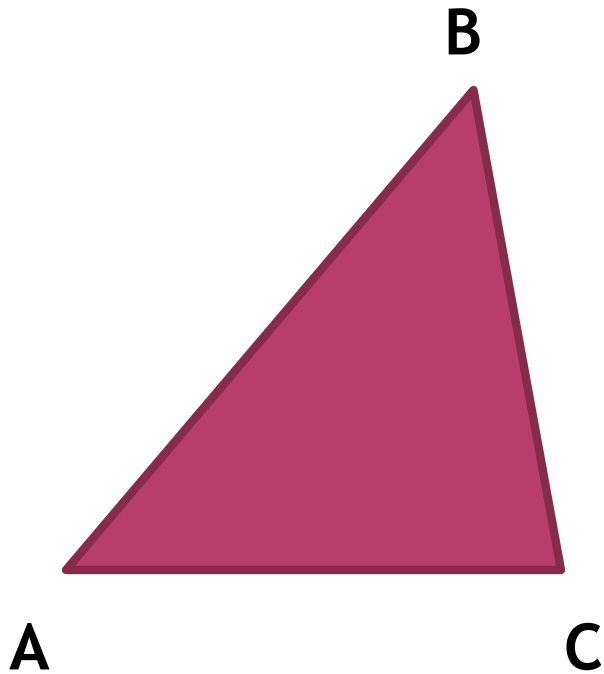


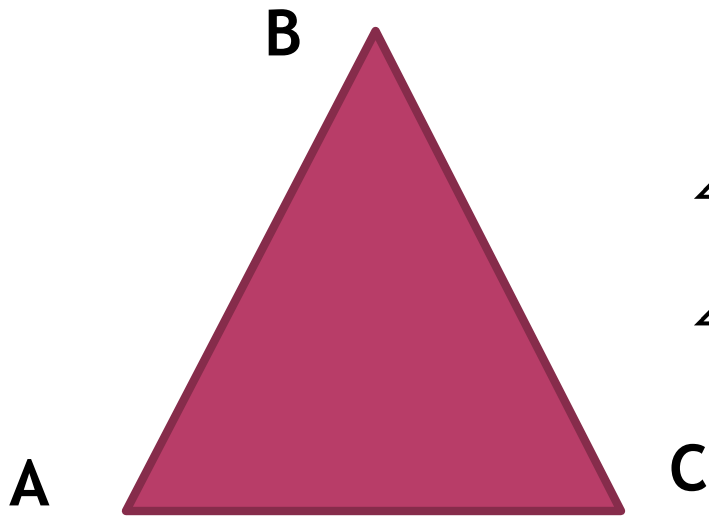
# СООТНОШЕНИЯ МЕЖДУ СТОРОНАМИ И УГЛАМИ ТРЕУГОЛЬНИКА



$$\angle \hat{A} = 47^\circ; \angle \hat{A} = 53^\circ$$

$$\angle \tilde{N} - ?$$

$$\angle \tilde{N} = 180^\circ - (47^\circ + 53^\circ) = 80^\circ$$



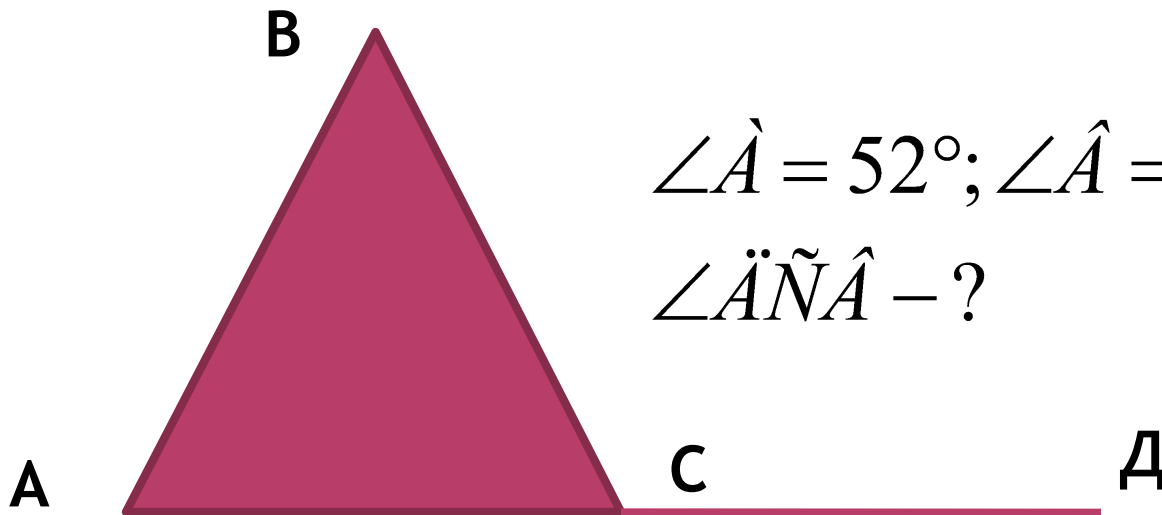
$$\angle A = 47^\circ; \angle A - ?$$

$$\angle C - ?$$

$$\angle A = \angle C = 47^\circ \text{ (isosceles triangle)}$$

$$\text{Sum of angles in a triangle} = 180^\circ$$

$$180^\circ - (47^\circ + 47^\circ) = 86^\circ$$



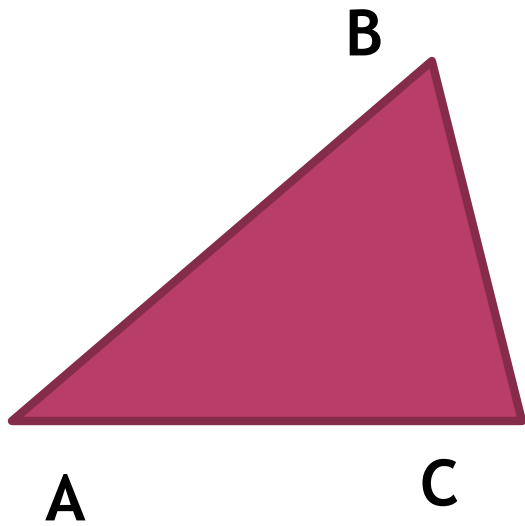
$$\angle A = 52^\circ; \angle C = 37^\circ$$

$$\angle A\tilde{N}A - ?$$

$$\angle A\tilde{N}A - \text{áíåøíèè} \quad \_ \quad \text{óãîë}$$

$$\Delta A\tilde{N};$$

$$\angle A\tilde{N}A = 52^\circ + 37^\circ = 89^\circ$$



$$\angle A = 45^\circ; \angle C = 30^\circ$$

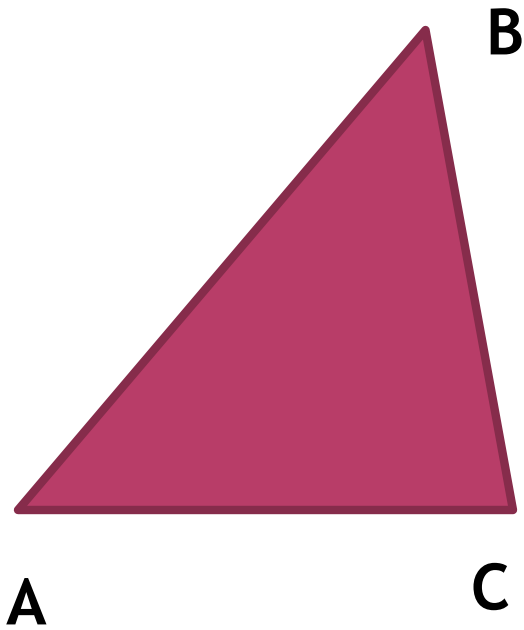
Ίσχύει η σχέση  $\hat{A} + \hat{B} + \hat{C} = 180^\circ$

$$\hat{A} + \hat{B} + \hat{C} = 180^\circ$$

$$\hat{A} = 180^\circ - (45^\circ + 30^\circ) = 105^\circ \text{ — οότε — } \hat{B} = 105^\circ;$$

$$\hat{A} - \hat{C} = 105^\circ - 30^\circ \Rightarrow$$

$$\hat{A} - \hat{C} = 75^\circ \text{ — ηλαδή —}$$



$$AN = 1,3 \text{ km} ;$$

$$BN = 1,4 \text{ km} ;$$

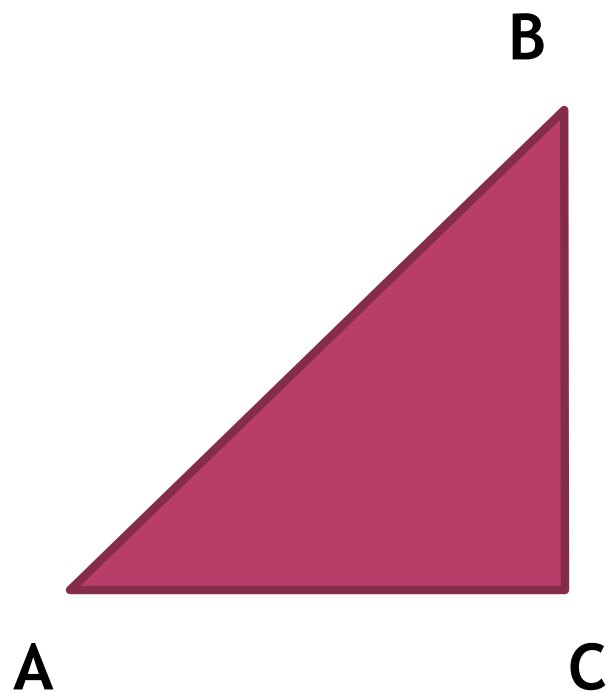
$$AC = 2,9 \text{ km}$$

$$AN < AB + BN$$

$$2,9 \text{ km} < 1,3 \text{ km} + 1,4 \text{ km}$$

$$2,9 \text{ km} < 2,7 \text{ km} \text{ (impossible)} \Rightarrow$$

$\Rightarrow$  a point N exists on the segment AC such that



$$\angle \tilde{N} = 90^\circ$$

AC - катет

BC - катет

AB - гипотенуза