

**Task.** Find the area of the triangle, is side  $a = 12.7$ , side  $b = 8.6$  and the angle between them  $\gamma$  is 73 degrees.

**Solution.** It is known that the area of the triagne wit two sides  $a$  and  $b$  and the angle  $\gamma$  between them can be computed by the following formula:

$$S = \frac{1}{2}ab \sin \gamma.$$

In our case

$$a = 12.7, \quad b = 8.6, \quad \gamma = 73^\circ.$$

Then

$$\sin \gamma = \sin 73^\circ \approx 0.95630,$$

and substituting the values to the above formula we get

$$S = \frac{1}{2}ab \sin \gamma = \frac{1}{2} * 12.7 * 8.6 * 0.95630 \approx 52.2.$$

**Answer.**  $S = 52.2$ .