Task. One of two complementary angles added to $\frac{1}{2}$ the other yields 62°. Find the measure of the two angles.

Solution. Let x and y be these angles. Since they are complementary, we have that

$$x + y = 90,$$

and so

$$x = 90 - y.$$

On the other hand, by assumption, x added to $\frac{1}{2}$ of y yields 62°, so

$$x + y/2 = 62.$$

Substituting $x = 90 - y$ we obtain

$$90 - y + y/2 = 62,$$
$$90 - y/2 = 62,$$
$$y/2 = 90 - 62 = 28,$$
$$y = 2 * 28 = 56^\circ,$$

whence

$$x = 90 - 56 = 34^\circ.$$

Answer. $34^\circ,\ 56^\circ$.