

Let:

$$V = 210 \text{ m/s}$$

$$m = 500\text{g} = 0,5 \text{ Kg}$$

$$c = 0,3 \text{ CGS units} = 300 \text{ J/KgK}$$

$$\Delta T = ?$$

The bullet kinetic energy passes in heat:

$$Q = Ek$$

$$Cm\Delta t = \frac{mV^2}{2}$$

$$\Delta t = \frac{mV^2}{2cm} = \frac{V^2}{2c}$$

Let's enter the data:

$$\Delta t = \frac{210^2}{2 \times 300} = 73,5^\circ$$

Answer:

The increase in temperature is:  $73,5^\circ$