An LED (light emitting diode) consumes 20mA of current when connected through a resistor to a 9V, 100mAh battery. How long will the LED remain illuminated?

\[ I = 20 \text{ mA} = 0.02 \text{ A} \]
\[ t = ? \]

\[ t = \frac{100 \text{ mAh}}{20 \text{ mA}} = 5 \text{ hours} \]