A flu epidemic spreads so that after $t$ days, the number of infected persons is given by

$$Q(t) = \frac{1000}{1 + 273e^{-0.8t}}$$

How many persons had the flu after the first day?

Solution. After the first day, $Q(1) = \frac{1000}{1 + 273e^{-0.8}} \approx 8.15$ persons were infected.