

Physique 30S

Devoir : la fréquence et la vitesse des ondes

1.a. $T = \frac{2,3s}{690}$
 $T = 0,0033s$

$$f = \frac{1}{T}$$
$$f = \frac{1}{0,0033s}$$
$$f = 300Hz$$

b. $\lambda = \frac{v}{f}$
 $\lambda = \frac{344m/s}{300Hz}$
 $\lambda = 1,15m$

2.a. $T = \frac{0,3s}{60}$
 $T = 0,005s$

$$f = \frac{1}{T}$$
$$f = \frac{1}{0,005s}$$
$$f = 200Hz$$

b. $\lambda = \frac{v}{f}$
 $\lambda = \frac{340m/s}{200Hz}$
 $\lambda = 1,7m$

3. $T = \frac{0,3s}{7,5}$
 $T = 0,04s$

$$f = \frac{1}{T}$$
$$f = \frac{1}{0,04s}$$
$$f = 25Hz$$