

Your heart beats with a frequency of 1.45Hz

- 1) How many beats occur in a minute?
- 2) What happens to the number of beats if the frequency increases? Explain.
- 3) How many beats occur in one minute if the frequency is 1.55Hz ?

1)

$$1.45\text{Hz} = 1.45 \frac{1}{\text{s}} (60\text{s}) = \boxed{87 \text{ beats}}$$

2)

the number increases

$$\left(\frac{\text{oscillations}}{\text{time}} \right) (\text{time}) = \text{oscillations}$$

3)

$$1.55 \frac{1}{\text{s}} (60\text{s}) = \boxed{93.0 \text{ beats}}$$