

# Waves

## 3. Wave Effects

### CONCEPT 1

### TEST YOURSELF

#### ULTRASOUND

##### KNOW

- Q1 What is the average range of human hearing?
- Q2 Why is there no point in having a sound system that plays note higher than 20 000 Hz?
- Q3 If a trumpet playing a note of 200 Hz, what, in this instrument, is vibrating at this rate?

##### APPLY

- Q4 Which of the following frequencies are ultrasound?
- A 50 000 Hz      B 5000 Hz      C 500 Hz      D 5 Hz
- Q5 The following toothbrush is being sold:

Look at the information on the front of the box.

Is this toothbrush ultrasonic? Give a reason for your answer



##### EXTEND

- Q6 Why might using ultrasound on tense muscles be different to having a massage?
- Q7 Look at these images of ultrasound scans of unborn babies.



Why do ultrasound scans not show colour?