

1. True
2. False
3. True
4. False
5. True
6. True



10. Constructive and destructive interferences of waves
11. Electron exhibits the wave property of interferences
12.  $p = 2.5 \text{ kg m/s}$   

$$\lambda = \frac{6.63 \times 10^{-34}}{2.5 \times 10^{-1}}$$

$$= 2.65 \times 10^{-34}$$
13.  $p = 5.4 \times 10^{-25} \text{ kg m/s}$   

$$\lambda = \frac{6.63 \times 10^{-34}}{5.4 \times 10^{-25}}$$

$$= 1.2 \times 10^{-9}$$
14. the energy of the electron is much higher than energy of the cricket ball
15.  $\lambda = 6.5 \times 10^{-7} \text{ m}$   

$$= \frac{6.63 \times 10^{-34}}{6.5 \times 10^{-7}}$$

$$= 1.02 \times 10^{-27}$$
16.  $\lambda = 6 \times 10^{-2} \text{ m}$   

$$= \frac{6.63 \times 10^{-34}}{6 \times 10^{-2}}$$

$$= 1.1 \times 10^{-32}$$

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