

C.4 Standing waves and resonance

Checklist

What you should know

After studying this subtopic, you should be able to:

- Understand the nature of standing waves and how they are formed.
- Understand what is meant by nodes and antinodes.
- Know the phase difference and relative amplitude of different points along a standing wave.
- Understand the standing wave patterns in strings and pipes when there are different boundary conditions.
- Understand what causes resonance.
- Understand damping and how it affects maximum amplitude and resonant frequency.
- Know the effects of light, heavy and critical damping.

