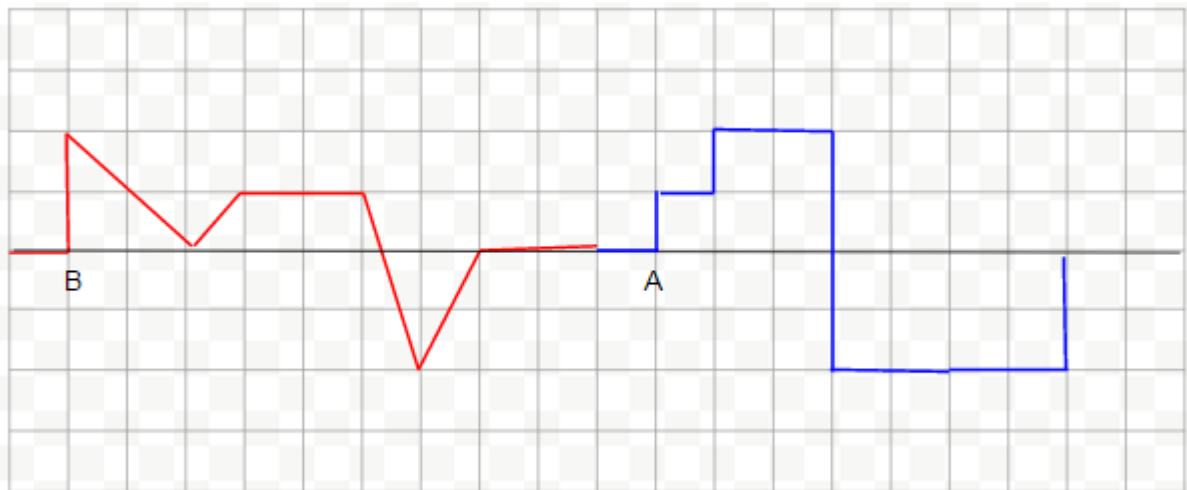


## Resonance, Superposition and Standing Waves (Student)

1. Define resonance.
2. Describe an example of mechanical resonance.
3. Define the Principle of Superposition.
4. Imagine two waves travelling in opposite directions in a spring. With a dashed line, draw the wave coming from the right side so that point B coincides with point A. Draw with a heavy solid line the resulting superposition of the two waves.



- 5.a) A standing wave has 4 nodes and is 3.0 m long. The wave speed is 100 cm/s.

b) How many nodes for in a standing wave with a wavelength of 2.0 m in a rope in a 10m rope?