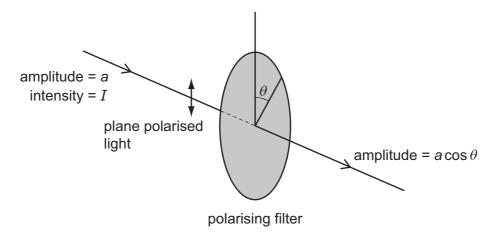
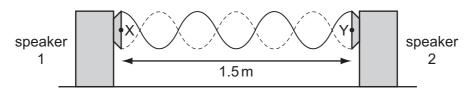
25 When plane-polarised light of amplitude a is passed through a polarising filter as shown, the amplitude of the light emerging is $a\cos\theta$.



The intensity of the initial beam is I.

What is the intensity of the emerging light when θ is 60.0°?

- **A** 0.250*I*
- **B** 0.500 *I*
- **C** 0.750*I*
- **D** 0.866 *I*
- 26 A stationary wave is produced by two loudspeakers emitting sound of the same frequency.



When a microphone is moved between X and Y, a distance of 1.5 m, six nodes and seven antinodes are detected.

What is the wavelength of the sound?

- **A** 0.50 m
- **B** 0.43 m
- **C** 0.25 m
- **D** 0.21 m

Space for working