

10 Ramped Wave Speed Calculation Questions using $\text{Speed} = \frac{\text{distance}}{\text{time}}$

These questions will help you practise using the wave speed equation in a range of real-life situations. Start with straightforward calculations before moving on to rearranging the equation to find distance and time. Remember to include units in every answer and show all your working.

1. A sound wave travels 340 m in 1 second. Calculate the speed of the wave.
2. A water wave travels 24 m in 8 seconds. Calculate the speed of the wave.
3. An earthquake wave travels 1500 m in 3 seconds. Calculate the speed of the wave.
4. A ripple on a pond travels 45 m in 15 seconds. Calculate the speed of the ripple.
5. A wave travels 1200 m in 4 seconds. Calculate the speed of the wave.
6. A sound wave travels at 330 m/s and takes 5 seconds to reach a listener. How far did it travel?
7. A water wave moves at 6 m/s and travels 72 m. How long did the journey take?
8. A sonar pulse travels through water at 1500 m/s. It covers a distance of 4500 m. Calculate the time taken.
9. A tsunami wave travels 360000 m in 600 seconds. Calculate the speed of the wave. Give your answer in standard form.
10. A seismic wave travels at 5.0×10^3 m/s. It takes 80 seconds to reach a monitoring station. Calculate the distance travelled. Give your answer in standard form.