

1 Measurement and motion – Part 1

—Answers

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Work through these after trying the questions yourself.

1.1 A number (magnitude) and a unit.

1.2 $9 \div 100 = 0.09$ mm per sheet.

1.3 $v = \frac{s}{t}$ (speed = distance $\div$ time).

1.4 $v = s/t = 100/20 = 5$ m/s.

1.5 The object is at rest (not moving).

1.6 $a = \frac{\Delta v}{\Delta t} = \frac{15 - 5}{2.0} = 5$ m/s².

1.7 Total distance = $60 + 40 = 100$ m; total time = $5 + 3 + 5 = 13$ s (count the rest).
Average speed = $100/13 = 7.7$ m/s.