

Speed Calculations

Name:

Date:

INQUIRY

The Nanjing-Shanghai high-speed train covers 300 km in 1.5 hours. How fast is that?

Discuss with your partner. Write your initial ideas below:

Key Vocabulary

Term	Definition
Speed	Distance / time. Units: m/s or km/h.
Distance-time graph	Gradient = speed. Flat = stationary.

Part A — Calculations

1. Nanjing-Shanghai train: 300 km in 1.5 h. Speed? [2 marks]

Show your working:

2. A Korean KTX train travels at 305 km/h for 2 hours. Distance? [2 marks]

Show your working:

3. A German ICE train covers 560 km at 280 km/h. Time? [2 marks]

Show your working:

4. Convert 20 m/s to km/h. [2 marks]

Show your working:

Part B — Distance-Time Graphs

5. A student walks to school: 0-5 min steady pace, 5-8 min stopped at traffic light, 8-15 min faster pace. Sketch a distance-time graph and describe what each section shows. [4 marks]