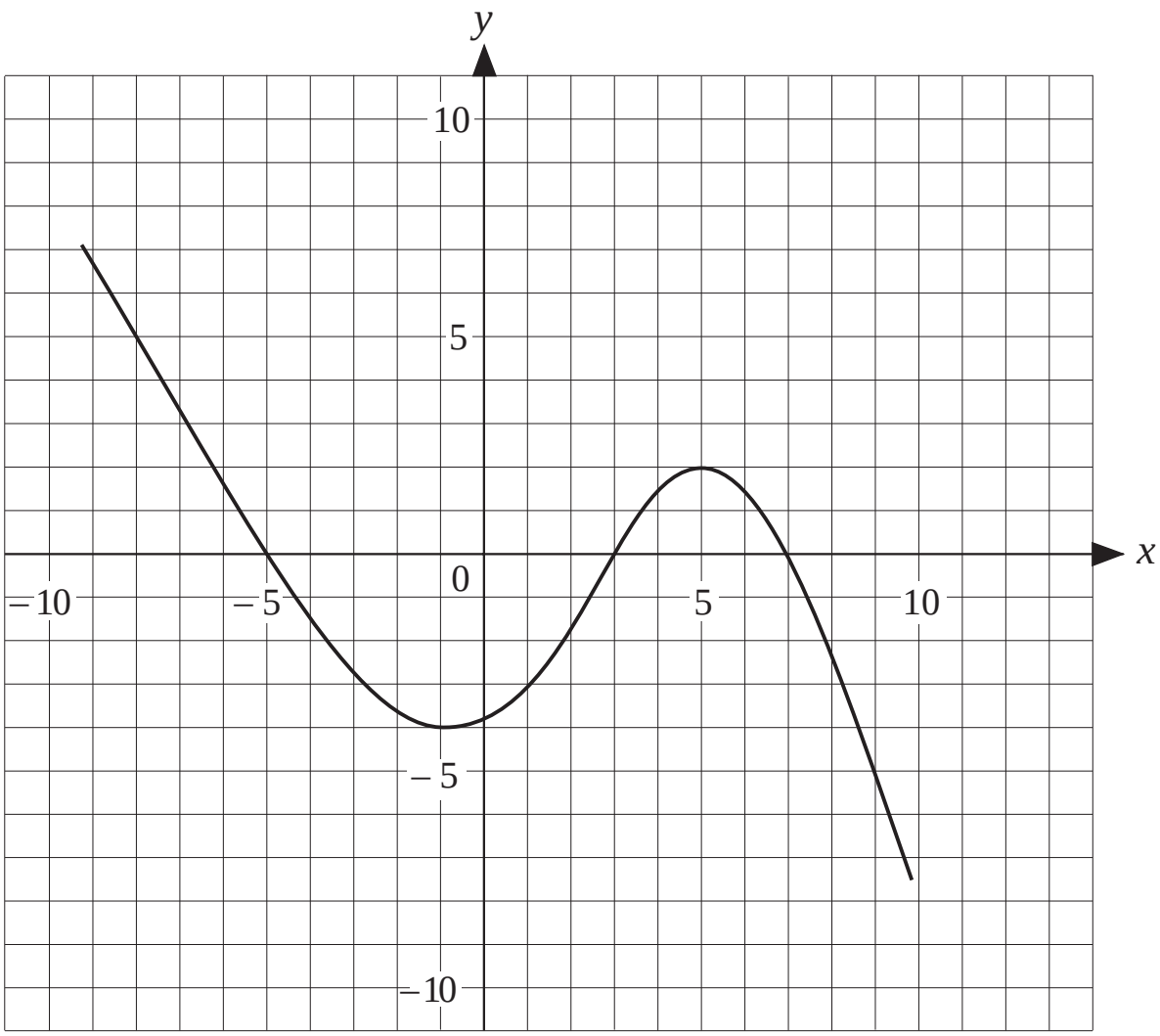
UNIT 17 *Using Graphs* Overhead Slides

Overhead Slides

OS 17.1 *Graph Transforms 1*

The graph of $y = f(x)$ is shown below.



On the diagram, draw graphs of:

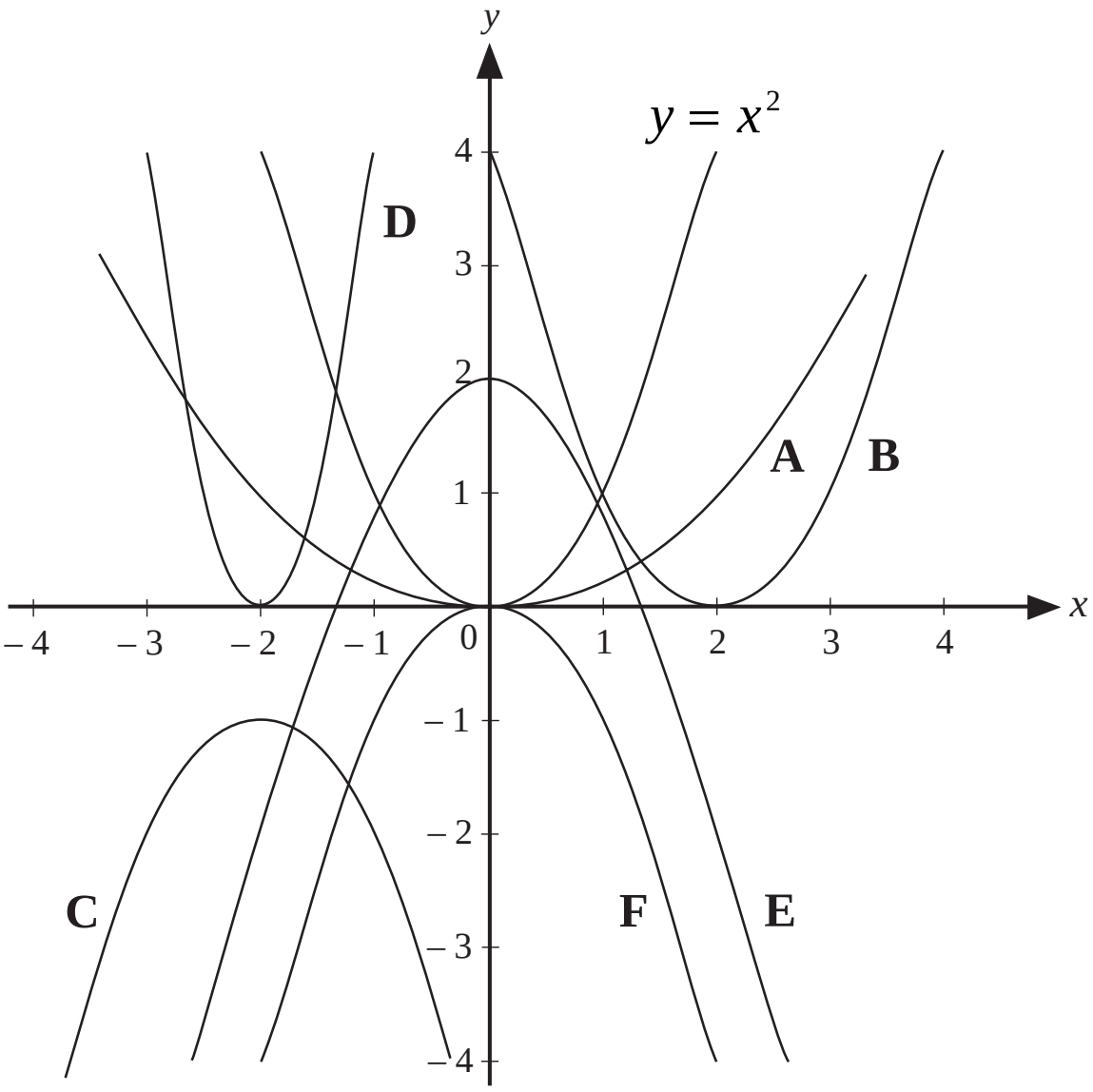
(a) $y = f(x+3)$ (b) $y = f\left(\frac{x}{2}\right)$

(c) $y = f(2x)$ (d) $y = f(x) - 2$

(e) $y = 2f(x)$

OS 17.2 *Graph Transforms 2*

The graph of $y = x^2$ is illustrated below, together with some transformations of this graph.



Suggest the possible forms of the transformation of $y = x^2$ to the functions with graphs labelled:

A _____ **B** _____ **C** _____

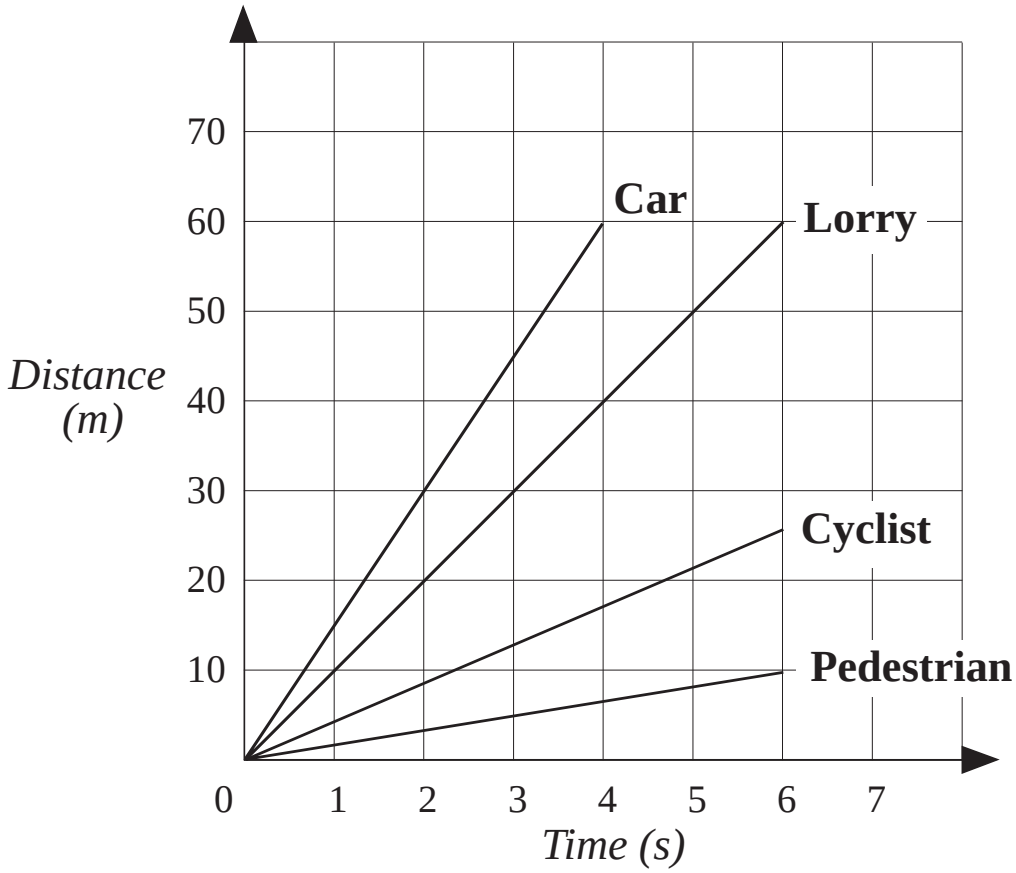
D _____ **E** _____

OS 17.3 *Distance-Time Graph*

The diagram shows **four** distance-time graphs.

Calculate the speeds of the car, lorry, cyclist and pedestrian.

Give your answers in m/s, correct to 2 d.p. where applicable.



1. Speed of car = _____

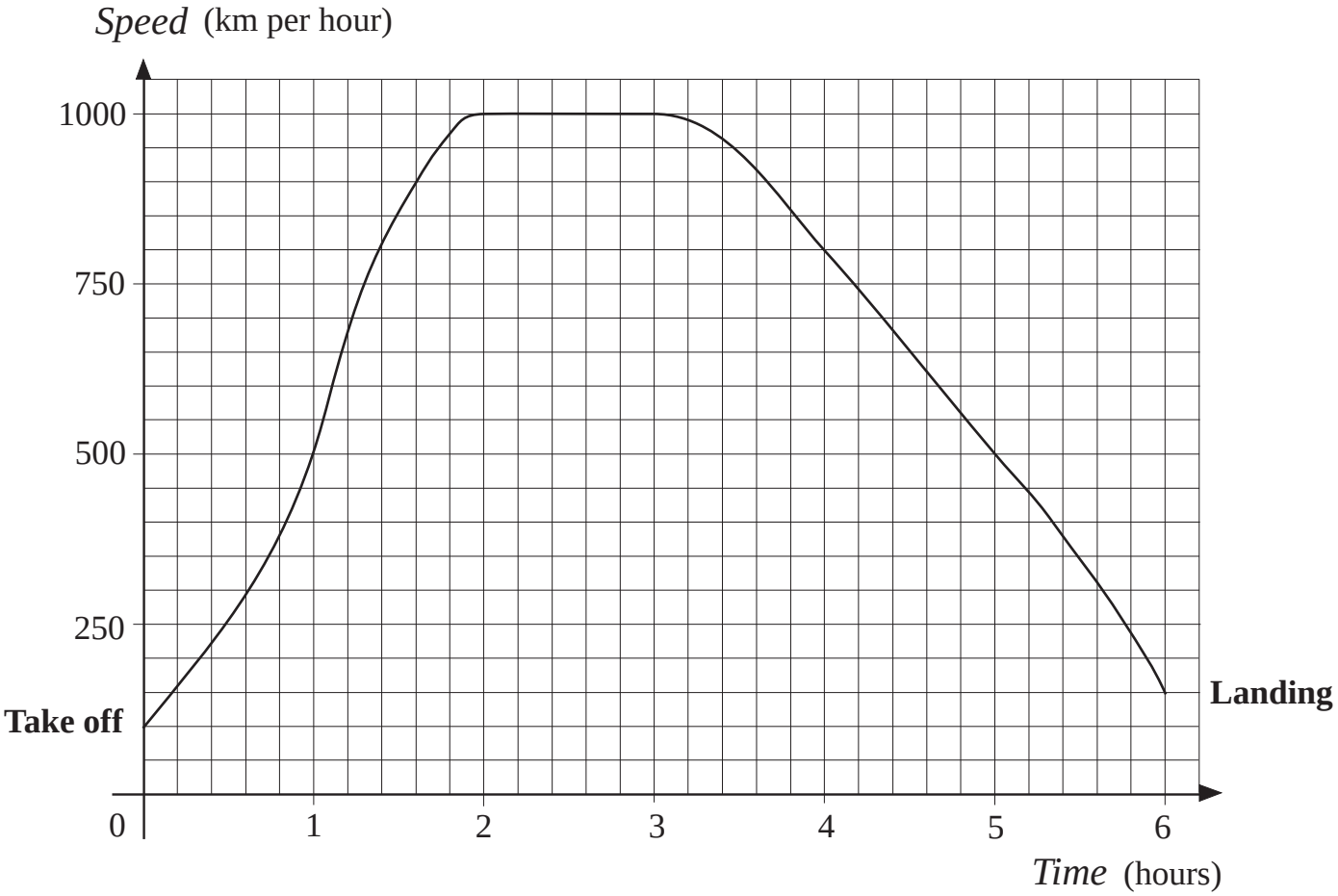
2. Speed of lorry = _____

3. Speed of cyclist = _____

4. Speed of pedestrian = _____

OS 17.4 *Speed-Time Graph*

A speed-time graph for a plane is shown below.



Estimate:

(a) the speed after 1 hour

(b) the acceleration at 1 hour

(c) the cruising speed

(d) the deceleration at time 5 hours

(e) the landing speed at time 6 hours

(f) the total distance travelled.