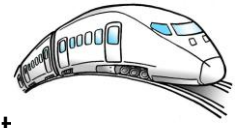
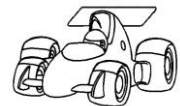


**Calculators permitted but all working needs to be shown.****Essential knowledge:**


1. Convert to hours: (a) 4hrs 42mins (b) 3hrs 18mins (c) 27mins
2. Convert to hours and mins: (a) 4.35hrs (b) 6.4hrs (c) 0.85hrs
3. (a) How far have you gone if you travel for 4 hours at an average speed of 52.5 km/h?
(b) A plane flies at a maximum speed of 460 km/h. How long will it take to travel 3220km at maximum speed?
(c) A car travels a distance of 342 km in 4 hours 36 minutes. Calculate its average speed for the journey.
4. Jack gets on the 9.50pm coach to London. What time will the coach arrive if the journey took 9 hours and 40 minutes?

**Unit level:**

5. The Eurostar leaves London at 2245 and arrives in Paris at 0745. How long did the journey take if Paris is 1 hour ahead?
6. (a) A boat travels a distance of 86 km in 9 hours 6 minutes. Calculate its average speed to the nearest km/h.
(b) A man runs a distance of 32 km at an average speed of 20 km/h. Calculate the time taken for the journey, in hours and minutes.
(c) How far will you have travelled if your journey takes $2\frac{3}{4}$ hours at an average speed of 87 km/h?
7. The flight distance from London to Dubai is 5478 km. The average airspeed of the aeroplane is 885 km/hr. What local time (to the nearest minute) does the 0930 flight arrive if Dubai is 4 hours ahead of London?

**Assessment level:**

8. Alzena drove from Glasgow to Manchester, 252 miles away. She left Glasgow at 11.55am and arrived in Manchester at 4.25pm. What was her average speed for the journey?
9. Usain flights to Moscow for a business meeting. The plane leaves London at 1845 and arrives in Moscow 3 hours 40 mins later. It should take him 45 mins to clear customs. If Moscow is 4 hours ahead of London, what time should his company order him a taxi?

-  **10.** In the 2013 Malaysian Grand Prix, Lewis Hamilton covered the 5.543km practice lap in 1 minute 51.7 seconds. What was his average speed for this lap to the nearest kilometres per hour?

CUMBERNAULD



ACADEMY