

**17** The data below are taken from a test of a petrol engine for a motor car.

|                        |                    |
|------------------------|--------------------|
| power output           | 150 kW             |
| fuel consumption       | 20 litres per hour |
| energy content of fuel | 40 MJ per litre    |

What is the ratio  $\frac{\text{power output}}{\text{power input}}$ ?

**A** 
$$\frac{150 \times 10^3}{40 \times 10^6 \times 20 \times 60 \times 60}$$

**B** 
$$\frac{150 \times 10^3 \times 60 \times 60}{20 \times 40 \times 10^6}$$

**C** 
$$\frac{150 \times 10^3 \times 40 \times 10^6 \times 20}{60 \times 60}$$

**D** 
$$\frac{150 \times 10^3 \times 20}{40 \times 10^3 \times 60 \times 60}$$