19 A car of mass 1400 kg is travelling on a straight, horizontal road at a constant speed of 25 m s^{-1}. The output power from the car's engine is 30 kW.

The car then travels up a slope at 2° to the horizontal, maintaining the same constant speed.

1400 kg

25 m s^{-1}

25 m s^{-1}

2°

What is the output power of the car's engine when travelling up the slope?

A 12 kW   **B** 31 kW   **C** 42 kW   **D** 65 kW