

- 9** A speed boat with two engines, each of power output of 36 kW, can travel at a maximum speed of 12 m s^{-1} . The total drag force D on the boat is related to the speed v of the boat by the following equation:

$$D \propto v^2$$

What is the maximum speed of the boat when only one engine is working?

A 3.0 m s^{-1}

B 6.0 m s^{-1}

C 8.5 m s^{-1}

D 9.5 m s^{-1}