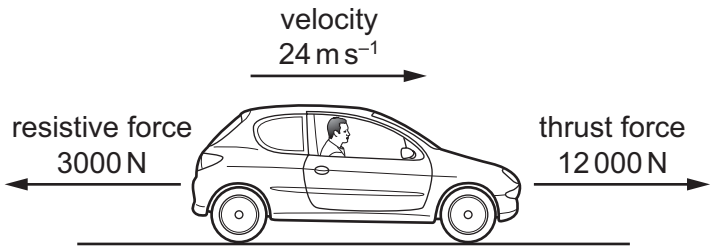
18 A car of weight 15 000 N is travelling along a horizontal road.

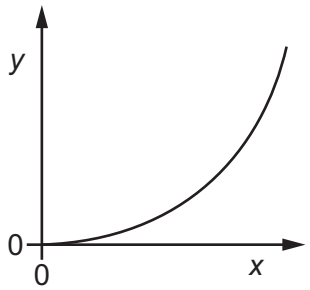


At one instant, the thrust force acting on the car from the engine is 12 000 N and the resistive force acting on the car is 3000 N. The velocity of the car at this instant is 24 m s^{-1}.

What is the power output from the engine?

A 72 kW **B** 220 kW **C** 290 kW **D** 360 kW

19 The diagram shows the variation of a quantity *y* with a quantity *x* for objects in a uniform gravitational field.



What could *x* and *y* represent?

	x	*y*
A	mass for different objects moving at the same speed	kinetic energy
B	speed for an object of constant mass	kinetic energy
C	vertical distance fallen for an object of constant mass	change of gravitational potential energy
D	mass for different objects falling the same vertical distance	change of gravitational potential energy