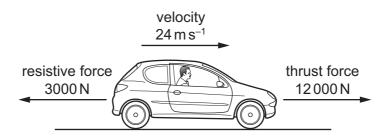
**18** A car of weight 15 000 N is travelling along a horizontal road.

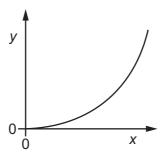


At one instant, the thrust force acting on the car from the engine is  $12\,000\,\text{N}$  and the resistive force acting on the car is  $3000\,\text{N}$ . The velocity of the car at this instant is  $24\,\text{m}\,\text{s}^{-1}$ .

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?

	Х	у
A	mass for different objects moving at the same speed	kinetic energy
В	speed for an object of constant mass	kinetic energy
С	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