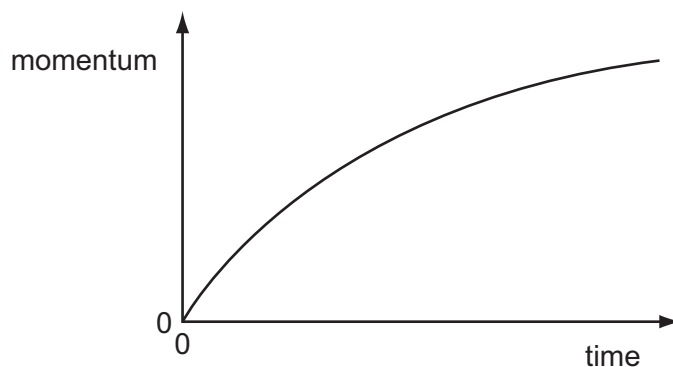


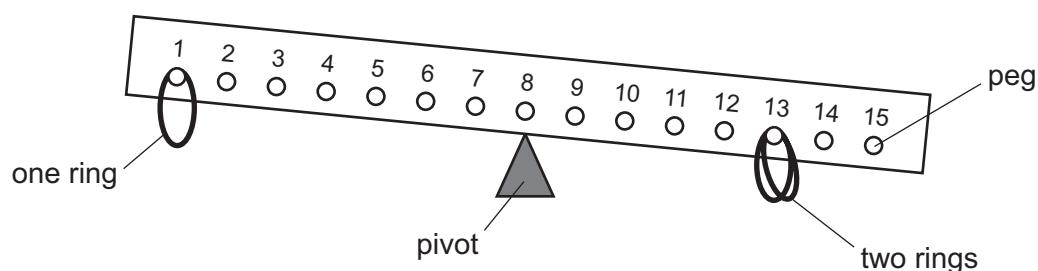
12 A car accelerates from rest. The graph shows the momentum of the car plotted against time.



What is the meaning of the gradient of the graph at a particular time?

- A** the resultant force on the car
- B** the velocity of the car
- C** the kinetic energy of the car
- D** the rate of change of kinetic energy of the car

13 The diagram shows a child's balancing game.



The wooden rod is uniform and all the rings are of equal mass. Two rings are hung on peg 13 and one on peg 1.

On which hook must a fourth ring be hung in order to balance the rod?

- A** 2
- B** 3
- C** 5
- D** 6

Space for working