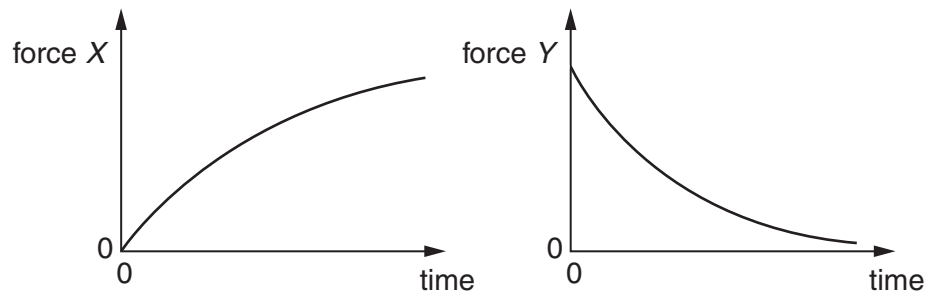


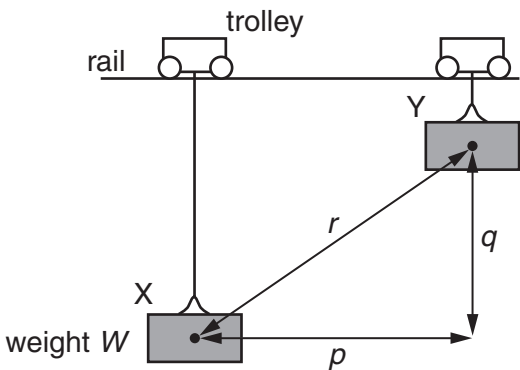
- 15 A ball falls from rest through air and eventually reaches a constant velocity.
- For this fall, forces X and Y vary with time as shown.



What are forces X and Y ?

	force X	force Y
A	air resistance	resultant force
B	air resistance	weight
C	upthrust	resultant force
D	upthrust	weight

- 16 Which of the following expressions **defines** power?
- A force x distance moved in the direction of the force
- B force x velocity
- C work done ÷ time taken
- D work done x time taken
- 17 A weight W hangs from a trolley that runs along a rail. The trolley moves horizontally through a distance p and simultaneously raises the weight through a height q .



As a result, the weight moves through a distance r from X to Y . It starts and finishes at rest.

How much work is done on the weight during this process?

- A Wp B $W(p + q)$ C Wq D Wr