11 A 3.0 kg rock is thrown vertically upwards near the surface of Planet X of mass *m* with a velocity of 45 m s^{-1} and it comes to an instantaneous rest 5.2 s later.

The same rock is now thrown vertically upwards for 15 m near the surface of Planet Y. The difference in gravitational potential between two points that are 4.0 m vertically apart and near the surface of Planet Y is 6.0 J kg^{-1}.

The gravitational field strength can be assumed to be uniform near at the surfaces of both Planet X and Planet Y. If both planets do not have atmosphere, the ratio of the gravitational field strength near the surface of Planet Y to that of Planet X is

A 13

B 5.8

C 0.17

D 0.077