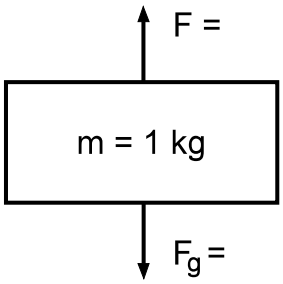
Each of the following free body diagrams represents a different problem. From the given data, solve for the missing quantities. Complete solutions for each problem should be shown (use a separate sheet if necessary). {Use g = 10 m/s^2}

1)



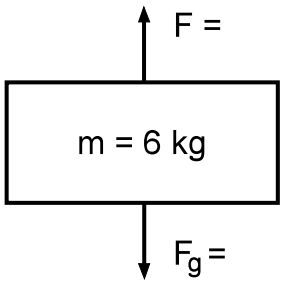
F_g =

a = 2.0 m/s^2 ⇓

F_{net} =

F =

2)



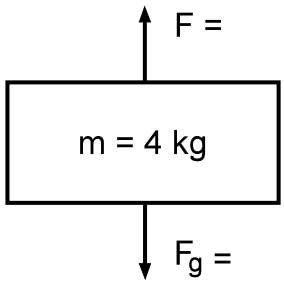
F_g =

a = 3.0 m/s^2 ⇑

F_{net} =

F =

3)



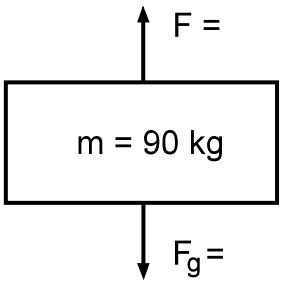
F_g =

a = 2.0 m/s^2 ⇓

F_{net} =

F =

4)



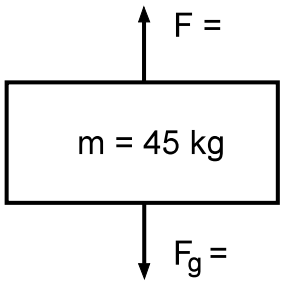
F_g =

a = 0.5 m/s^2 ⇓

F_{net} =

F =

5)



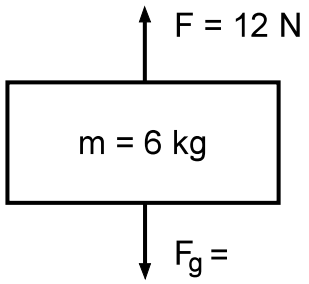
F_g =

a = 1.0 m/s^2 ⇑

F_{net} =

F =

6)

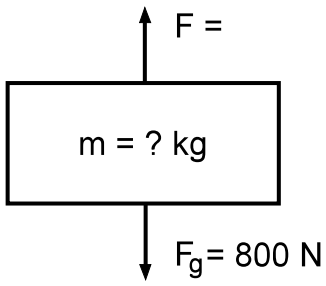


F_g =

F_{net} =

a =

7)



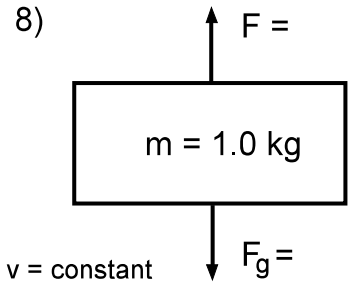
m =

a = 1.0 m/s^2 ⇓

F_{net} =

F =

8)



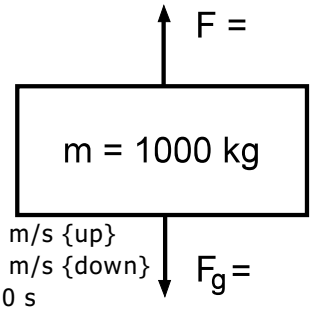
F_g =

a =

F_{net} =

F =

9)



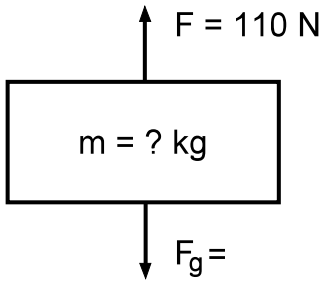
a =

F_g =

F_{net} =

F =

10)



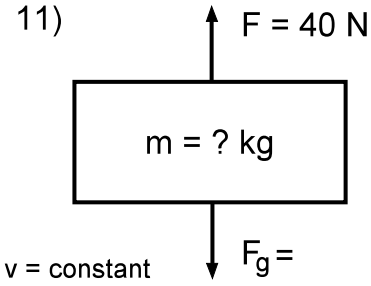
a = 1.0 m/s^2 {up}

F_g =

F_{net} =

m =

11)



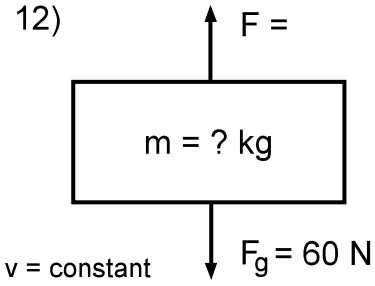
a =

F_{net} =

F_g =

m =

12)



a =

F =

F_{net} =

m =