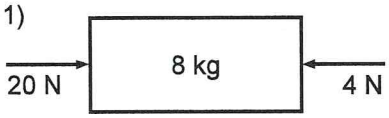
Each of the following free body diagrams represents a different problem. From the given data, solve for the missing quantities. Complete solutions for each problem should be shown (use a separate sheet if necessary).

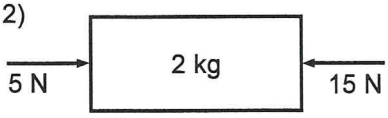
1)



F_{net} =

a =

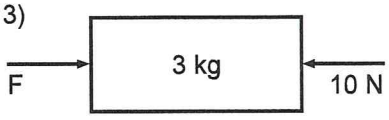
2)



F_{net} =

a =

3)



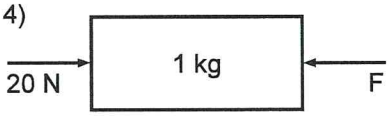
uniform motion

F_{net} =

a =

F =

4)



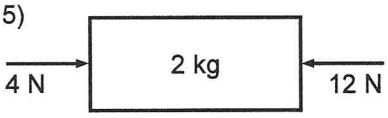
a = zero

type of motion =

F_{net} =

F =

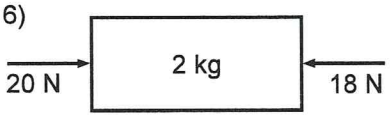
5)



F_{net} =

a =

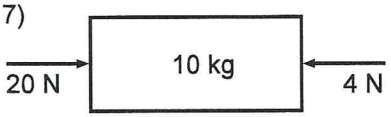
6)



F_{net} =

a =

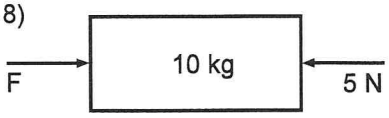
7)



F_{net} =

a =

8)

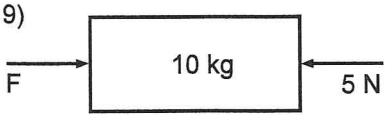


a = 2.0 m/s² ➡

F_{net} =

F =

9)

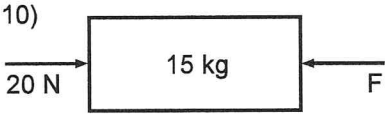


a = 2.0 m/s² ⬅

F_{net} =

F =

10)

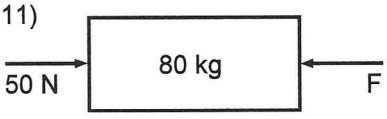


F_{net} = 7.5 N [East]

a =

F =

11)



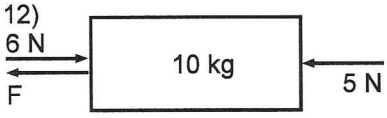
v_1 = 6 m/s [East]
v_2 = 6 m/s [West]
Δt = 4.0 s

a =

F_{net} =

F =

12)



a = 1.7 m/s² ⬅
Δt = 5.0 s

F_{net} =

F =

Δv =