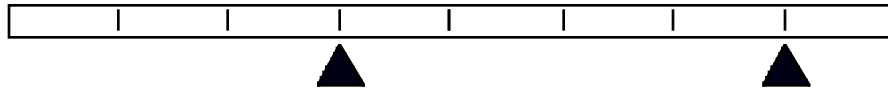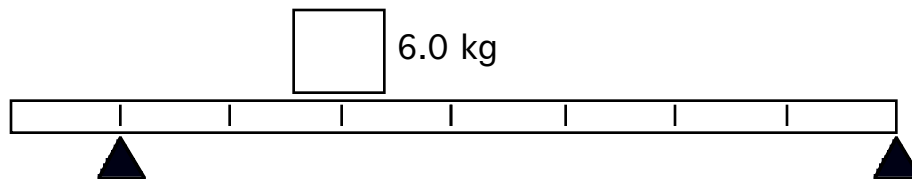# Equilibrium 12

1) Find the forces F_1(on left) and F_2 (on right) required to support the beam and any masses on it. (beam mass = 16. kg, beam length = 8.0 m)
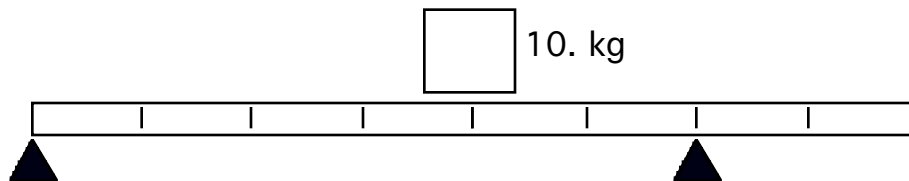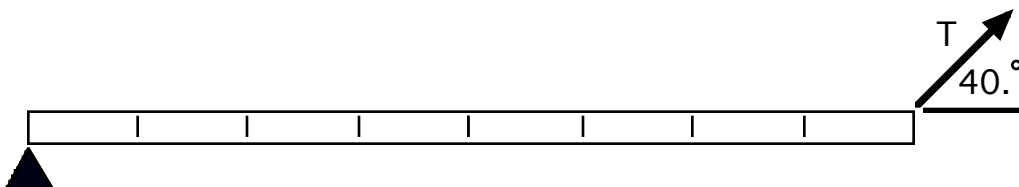
a)

b)

6.0 kg

c)

10. kg

2) Find the tension (T) required in the wire to support the beam. The wire is at an angle of 40. degrees to the horizontal.

T

40.°

Answers: 1)a) 120 N, 39 N, b) 130 N, 84 N, c) 85 N, 170 N, 2) 120 N.