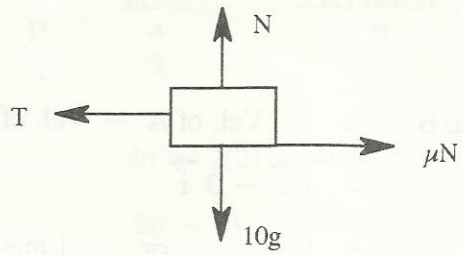
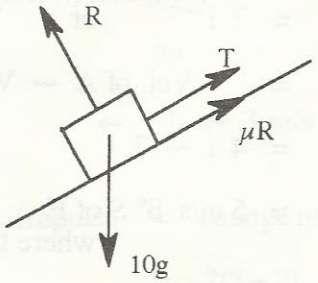
3 (i)



10



10 20

(ii) A: $N = 10g$

$T - \mu N = 10(1)$ 5

$T - \mu(100) = 10$ .....eq(i)

B: $R = 10g\cos X = 8g$ 5

$10g\sin X - \mu R - T = 10(1)$ 5

$60 - \mu(80) - T = 10$ .....eq(ii)

add equations (i) and (ii)

$180\mu = 40$

$\mu = \frac{2}{9}$ or 0.22 5 20

(iii) $T - 100\mu = 10$

$T = 10 + 100(0.222)$ 5

$= 32.2$ N 5 10