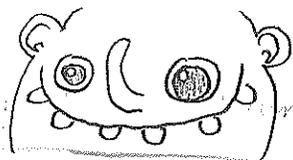


Static Equilibrium (3 page booklet)



$$F_A = 8600\text{N}$$

(2) B. 2.1 kg

(3) C. 49.3 N

(4) D. 2160 N

$$F_B = 6800\text{N}$$

(5) $\vec{F} = 13\text{N}$ @ 8.6° above $-x$, located 0.15 m from right end of beam.

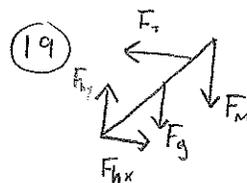
(6) $1.6 \times 10^2\text{N}$ up (7) 3.5 kg (8) 0.68 m (9) 47 N (10) 67°

(11) C (12) C. $2.0 \times 10^2\text{N}$ (13) D. 7.0 kg (14) A. Nm (15) C. 24 N

(16) a) $\theta = \phi = 48^\circ$ (17) $2.0 \times 10\text{kg}$ (18) a. $x = 0.31\text{m}$

b) Increase

b. 19 N



(19)

(20) $T_l = 250\text{N}$

$T_r = 110\text{N}$

b. 950 kg

(21) 13 N [14° above $-x$]

0.20 m left of right end of beam

22 a. both

b. neither

c. neither

d. rotational

e. translational

23. 73 Nm clockwise. (1 N)