

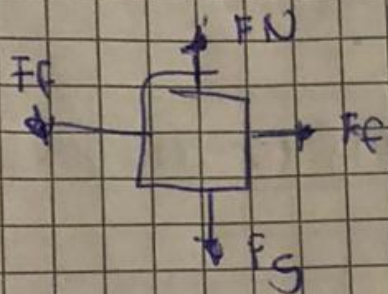
$$x(x) = -10 + 40x - 5x^2$$

$$x = 4.18 \quad x = 0.26$$

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Factor  $Adz$ .

1.  $M = 36 \text{ kg}$



$$\sum F_y = FN - 29.92 - 29.92 = 0$$

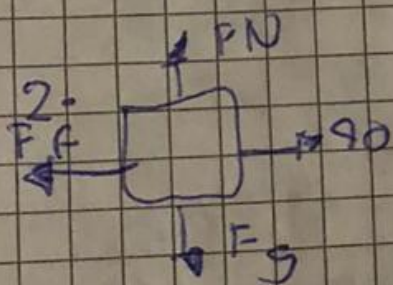
$$F_g = 36(9.81) = 353.16$$

$$\sum F_x = -6.25 + 149.778 - 36g$$

$$F_f = FN = 149.778$$

$$x = \frac{Mg \sin \theta}{a} = 6.29$$

$$a = 39.211 \text{ m/s}^2$$



$$m = 5 \text{ kg}$$

$$\sum F_y = FN - 49.05 = 0$$

$$F_g = 5(9.81) = 49.05$$

$$FN = 49.05$$

$$\sum F_x = 90.29 - 49.05 \text{ m/s}^2$$

$$-49.05 \text{ m/s}^2 = -16$$

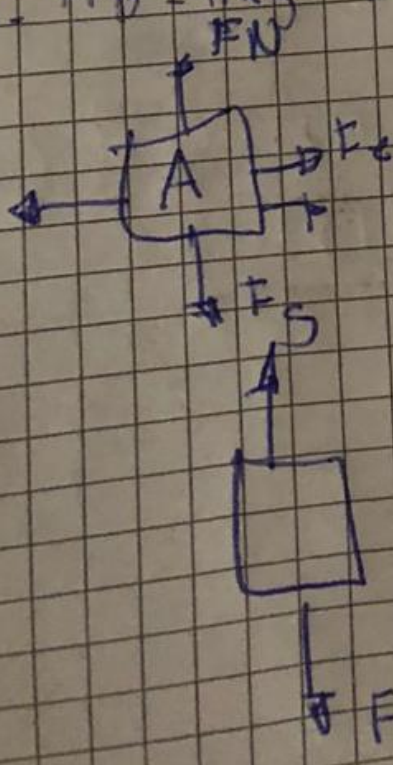
3.  $M_B = 11 \text{ kg}$

$$M_A = 0.56$$

$$a = 0$$

$$MA = 0.33$$

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$$A) \sum F_y = 9.81 \text{ m} + 9.81 \text{ m} = 0$$

$$\sum F_y = -5.99 \text{ m} + 107.91 = 0$$

$$B) \sum F_y = -107.91 + F_f = 0$$

$$F_g = 11(9.81) = 107.91$$

$$F_f = 107.91$$

$$\frac{107.91}{5.49} = 19.65 \text{ kg}$$