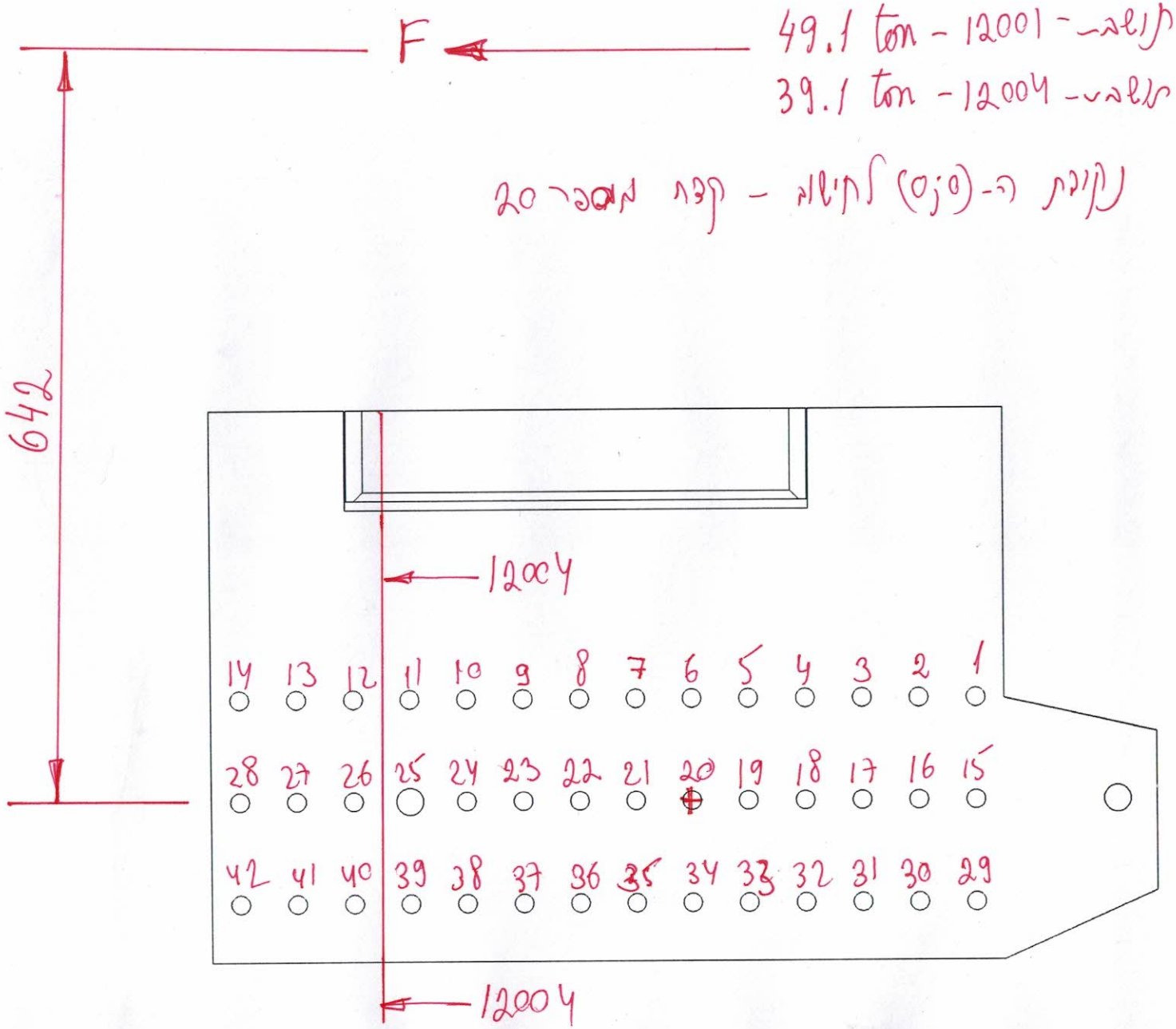
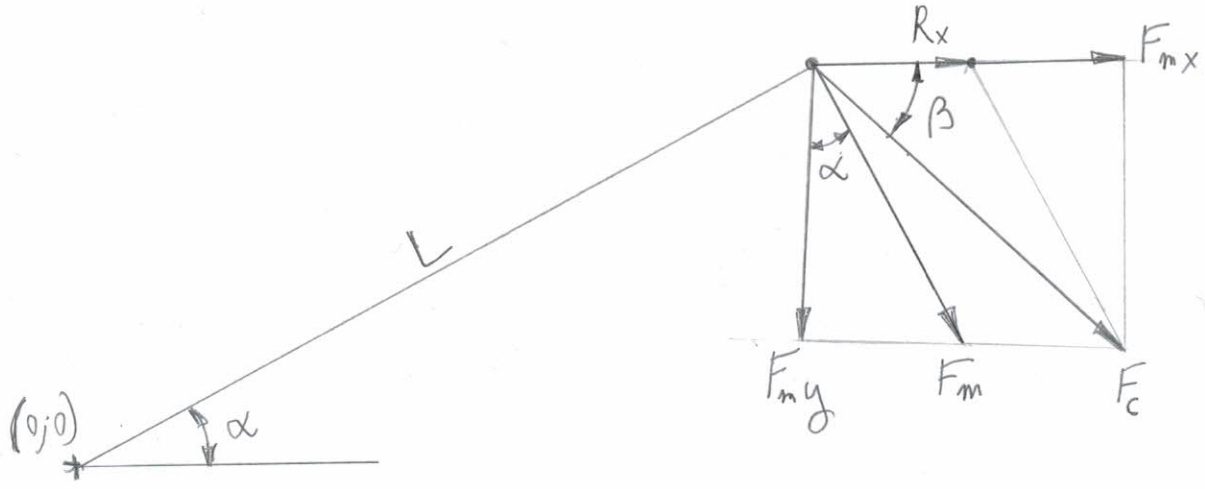


תושב - 12001 - 49.1 ton

תושב - 12004 - 39.1 ton

עקירת ה-(0;0) לתושב - קצה מספר 20

5÷1 נתון



$$F_c \cos\beta - F_c \sin\beta \times \operatorname{tg}\alpha - R_x = 0$$

$$F_{my} = F_c \sin\beta$$

$$F_m = F_{my} / \cos\alpha$$

נקודות 5-1

$$F_C = \text{Clamping Force} \times \mu_F$$

בכיוון x

$$F_C \cos\beta = R_x + F_{mx}$$

(1) $\Rightarrow$ $$F_{mx} = F_C \cos\beta - R_x$$

בכיוון y

(2) $$F_{my} = F_C \cdot \sin\beta = F_m \cos\alpha$$

(3) $$\frac{F_{mx}}{F_{my}} = tg\alpha \Longrightarrow \text{(4)} \quad F_{mx} = F_{my} \times tg\alpha$$

מ-(4)+(2)

$$\Rightarrow F_{mx} = F_C \cdot \sin\beta \times tg\alpha$$

מ-(1)

$$\Rightarrow F_C \cos\beta - R_x = F_C \sin\beta \cdot tg\alpha$$

$$\Rightarrow F_C \cos\beta - F_C \sin\beta \cdot tg\alpha = R_x$$

או

$$F_C \cos\beta - F_C \sin\beta \, tg\alpha - R_x = 0$$

מכאן נקבל את β ואח"כ

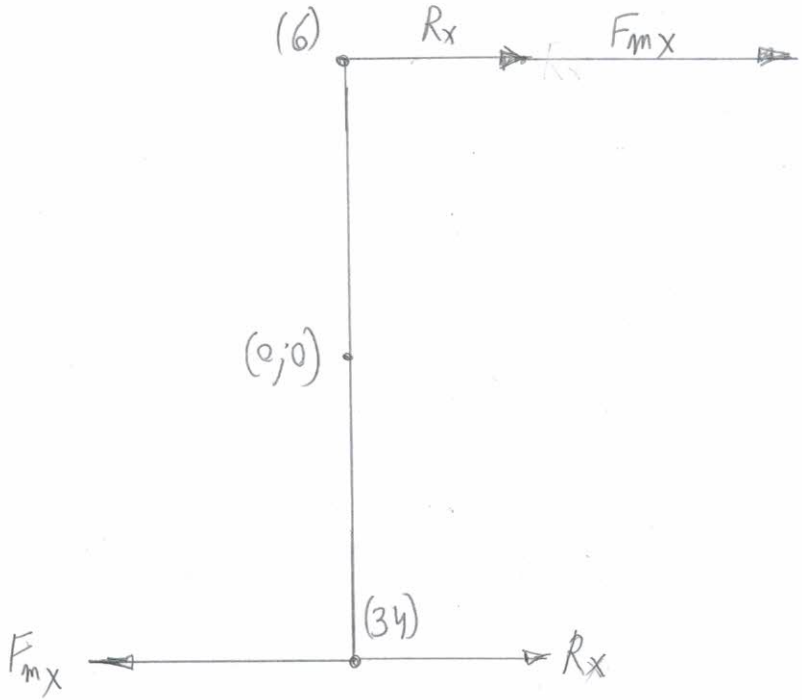
נקבל את F_m

$$F_{my} = F_C \cdot \sin\beta$$

$$F_m = \frac{F_{my}}{\cos\alpha}$$

(2)-נציב את F_{my} ב

$\Rightarrow$ נקבל את F_m $\left(= \frac{F_{my}}{\cos\alpha} \right)$



נקודה 6:

$$R_x + F_{mx} = F_c$$

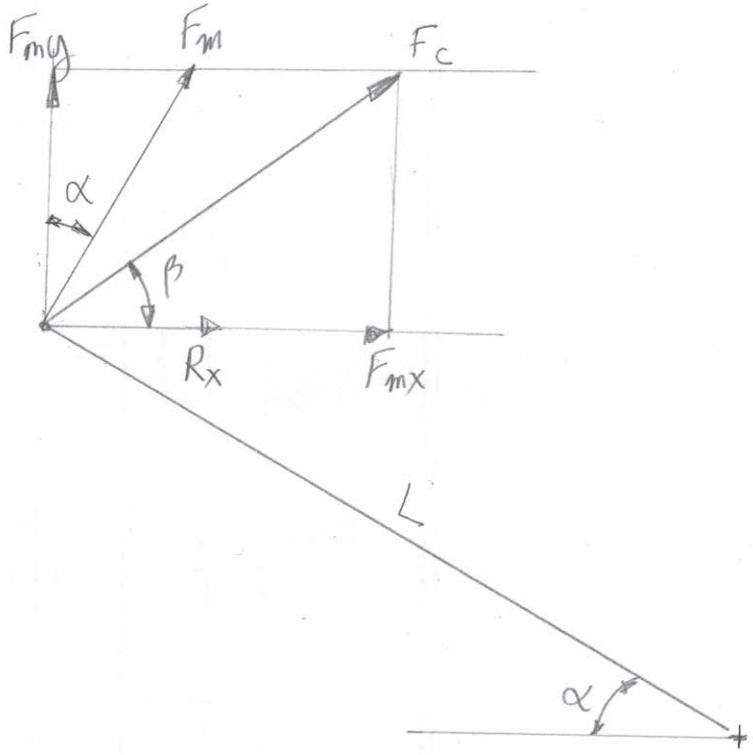
$$F_{mx} = F_c - R_x$$

נקודה 34:

$$R_x + F_{mx} = F_c$$

$$F_{mx} = F_c - R_x$$

Задача 7-14



$$F_c \cos\beta - F_c \sin\beta \cdot tg\alpha - R_x = 0$$

$$F_{my} = F_c \sin\beta$$

$$F_m = F_{my} / \cos\alpha$$

תרגיל 7-14

ציר x

$$F_c \cos\beta = R_x + F_{mx}$$

$$\Rightarrow \boxed{F_{mx} = F_c \cos\beta - R_x} \quad (1)$$

ציר y

$$\boxed{F_{my} = F_c \sin\beta = F_m \cos\alpha} \quad (2)$$

$$\boxed{\frac{F_{mx}}{F_{my}} = tg\alpha \Rightarrow F_{mx} = F_{my} \times tg\alpha} \quad (3)$$

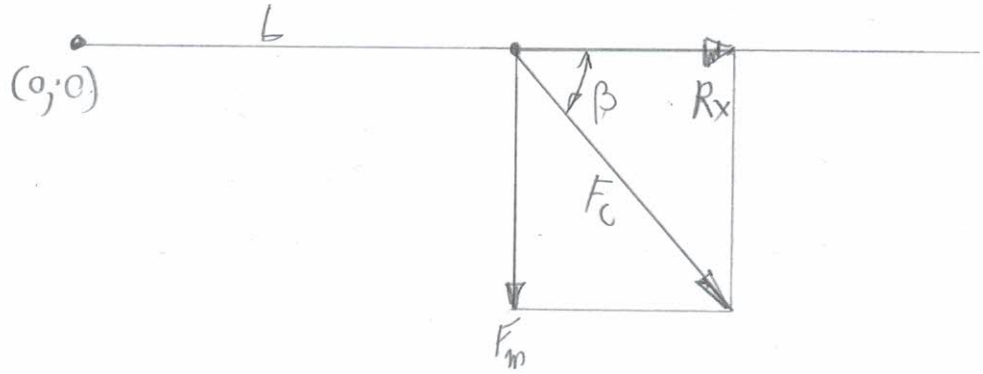
ג. מסקנה כללית לתרגיל 1-9

תרגילים 15 - 19

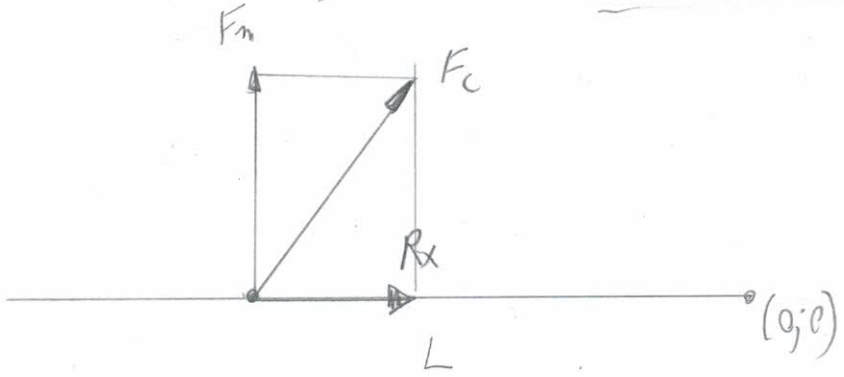
$F_c \cos\beta = R_x$

$\cos\beta = \frac{R_x}{F_c} \Rightarrow \beta = 79.6$

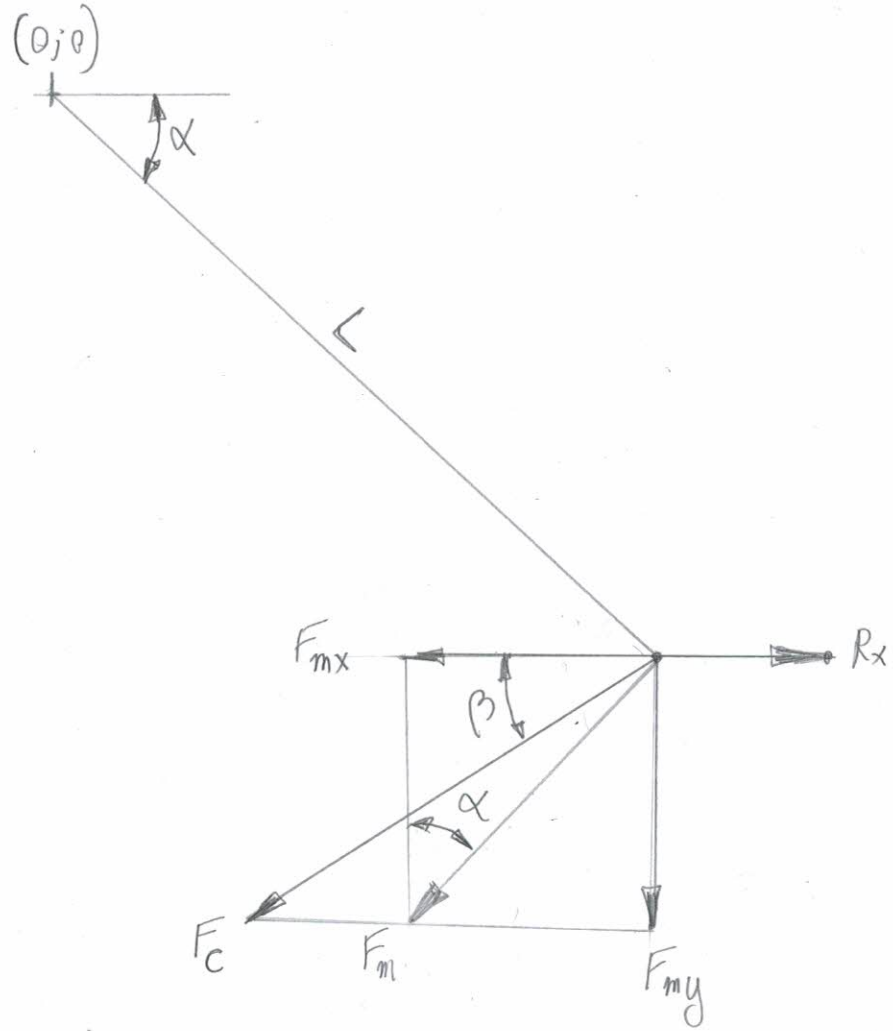
$F_c \sin\beta = F_m = 6.373$



תרגילים 21 - 28



שאר התרגילים 15-19



$$F_c \sin\beta \times \operatorname{tg}\alpha - F_c \cos\beta - R_x = 0$$

$$F_{my} = F_c \sin\beta$$

$$F_m = F_{my} / \cos\alpha$$

F_c = Clamp Force × μ_F

נקודות 33–29

בציון x

$$F_c \cos\beta = F_{mx} - R_x$$

(1) $$\Rightarrow F_{mx} = F_c \cos\beta + R_x$$

בציון y

(2) $$F_{my} = F_c \sin\beta = F_{my} = F_m \cos\alpha$$

(3) $$\frac{F_{mx}}{F_{my}} = tg\alpha \Rightarrow$$ (4) $$F_{mx} = F_{my} \cdot tg\alpha$$

מ-(2) ו-(4)

$$\Rightarrow F_{mx} = F \sin\beta \times tg\alpha$$

מ-(1)

$$\Rightarrow F_c \cos\beta + R_x = F_c \sin\beta \times tg\alpha$$

$$\Rightarrow R_x = F_c \sin\beta \times tg\alpha - F_c \cos\beta$$

(ונקבל את β את נציב את)

את F_{my} לפי (2)

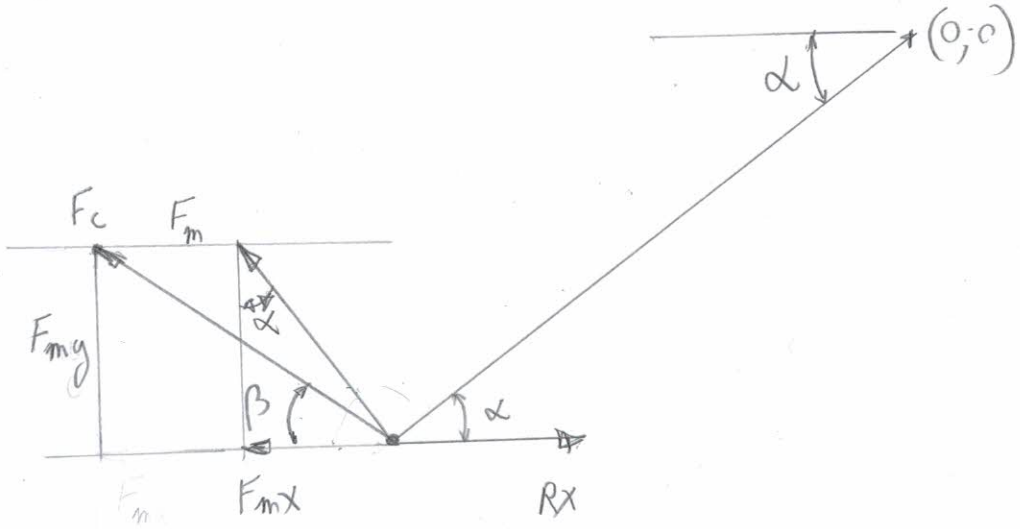
$$\Rightarrow F_m = \frac{F_{my}}{\cos\alpha}$$

$$F_c \sin\beta \cdot tg\alpha - F_c \cos\beta - R_x = 0$$

$$F_{my} = F_c \cdot \sin\beta$$

$$F_m = \frac{F_{my}}{\cos\alpha}$$

42-35 (131)



$$F_c \sin\beta \times tg\alpha - F_c \cos\beta - R_x = 0$$

$$F_{my} = F_c \sin\beta$$

$$F_m = F_{my} / \cos\alpha$$

שאלות 35 - 42

ציר x

$$F_c \cos\beta = F_{mx} - R_x$$

$$\Rightarrow \boxed{F_{mx} = F_c \cos\beta + R_x} \quad (1)$$

ציר y

$$\boxed{F_{my} = F_c \sin\beta = F_m \cos\alpha}$$

$$\boxed{\frac{F_{mx}}{F_{my}} = \operatorname{tg}\alpha \Rightarrow F_{mx} = F_{my} \cdot \operatorname{tg}\alpha}$$

פיזיקה שאלות 29 - 33