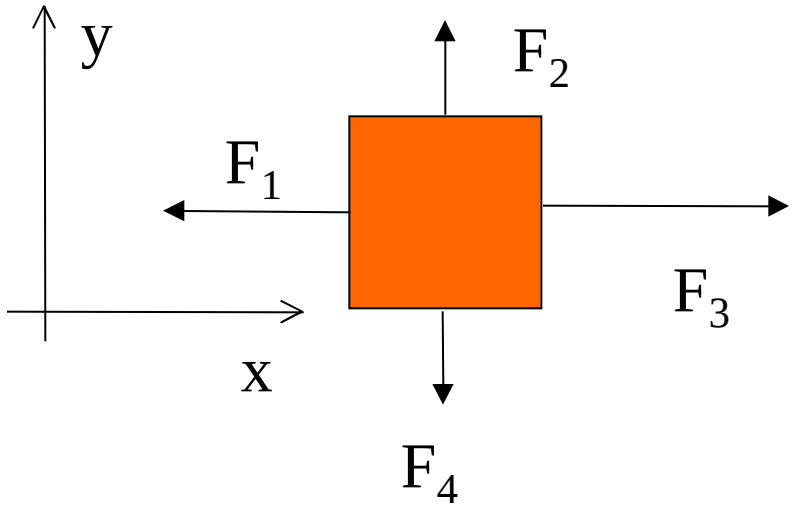
Q1 - Answer = c

Q2 - Problem A - Last name A-K

The rectangular object on the right has four forces with magnitudes F_1 = 5 N, F_2 = 6 N, F_3 = 8 N and F_4 = 6 N acting on it. What is the magnitude and direction of the net force acting on the object?



a. 13 N in + x direction

b. 12 N in -y direction

c. 3 N in - x direction

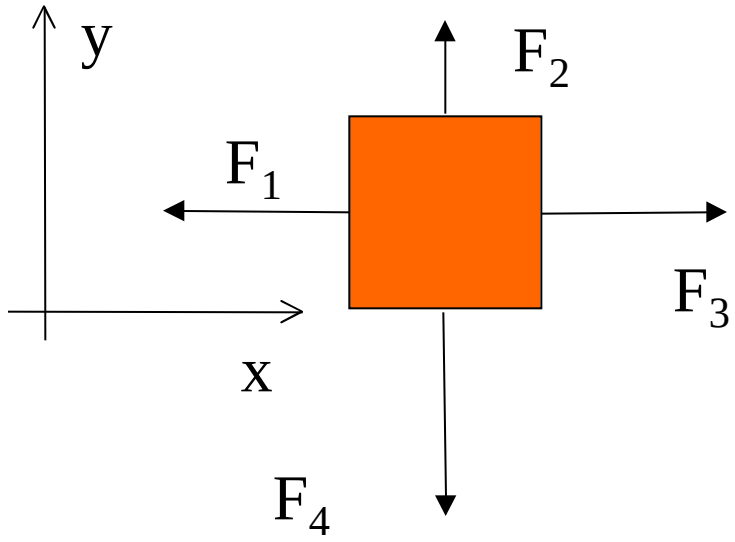
d. 3 N in + x direction $F_3 - F_1 = 8N - 5\ N = 3\ N$; y forces are balanced.

e. 3.75 N at 30° relative to + x and 60° relative to + y

Q1 - Answer = c

Q2 - Problem B - Last Name L-Z

The rectangular object on the right has four forces with magnitudes F_1 = 5 N, F_2 =4 N, F_3 = 5 N and F_4 = 8 N acting on it. What is the magnitude and direction of the net force acting on the object?



a. 9 N in + x direction

b. 12 N in -y direction

c. 4 N in + y direction

d. 4 N in -y direction $F_2 - F_4 = 4 - 8 = -4$ N; x forces are balanced.

e. 6.67 N at an angle of 45° to +y direction and - x