# Problem 2

Determine if the two sets of forces shown below are statically equivalent.

A

60 lbs

6 ft — 4 ft

B

80 lbs

20 lbs

2 ft — 4 ft — 6 ft

A

$\Sigma F_x = \underline{0}$
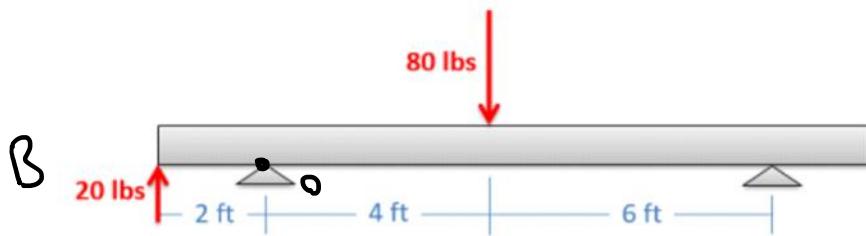
$\Sigma F_y = -\underline{60 \ lbs}$

$\Sigma M_a = -(60)(6) = \underline{-360 \ ft \ lbs}$

B

$\Sigma F_x = \underline{0}$

$\Sigma F_y = 20 - 80 = \underline{-60 \ lbs}$

$\Sigma M_o = -(80)(4) - (20)(2) = -360 \ ft \ lbs$

These forces are statically equivalent to one another