F pushes the two blocks on a horizontal rough surface. Assume $m_1 = m_2 = 1\,\text{kg}$. $F = 20\,\text{N}$.

$$F$$

$$\boxed{m_1} \quad \boxed{m_2}$$

$$\mu_1 \qquad \mu_2$$
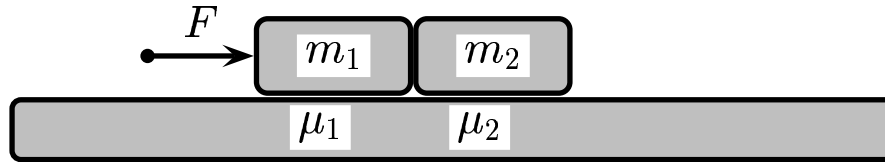
Would the blocks move for $\mu_s = 0.6$ and $\mu_k = 0.4$?

A) No, they would not.
B) Yes, they would.

Hint: $f_s^{max} = \mu_s N$. $F - f_k = m\,a$.
$f_s^{max} = \mu_s N = \mu_s\,(2\,m\,g) = (0.6)\,(2)\,(1\,\text{kg})\,(10\,\text{m/s}^2) = 12\,\text{N}$.
The force pushing to the right, $F = 20\,\text{N}$, is stronger than f_s^{max}, so the blocks move to the right.
Answer **B**.

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