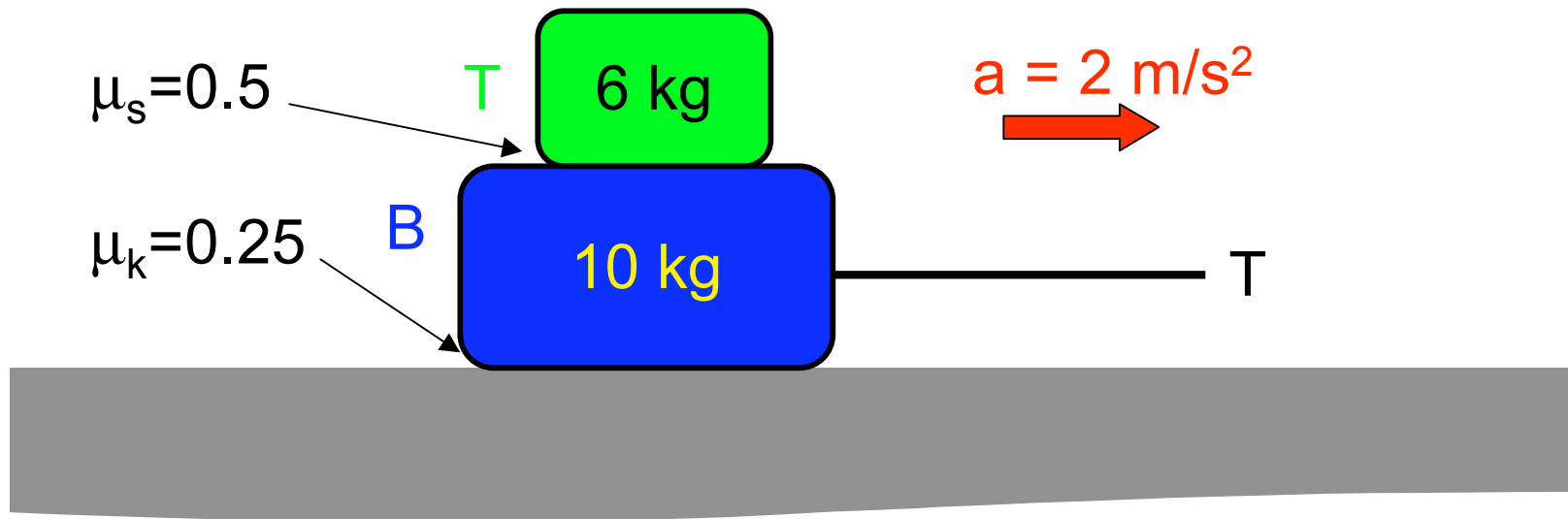


## Quiz: Free Body Diagrams



Two crates stacked atop one another are pulled across a smooth floor ( $\mu_k = 0.25$ ) by a rope with tension  $T$ . The crates are accelerating at  $2.0 \text{ m/s}^2$  and the top crate **does not slide over the bottom one**. Draw a free body diagram **for each crate**. Note the magnitudes of all forces on or below the diagram. (The vectors do not have to be to scale. If you prefer you may approximate  $g = 10 \text{ m/s}^2$ .)

