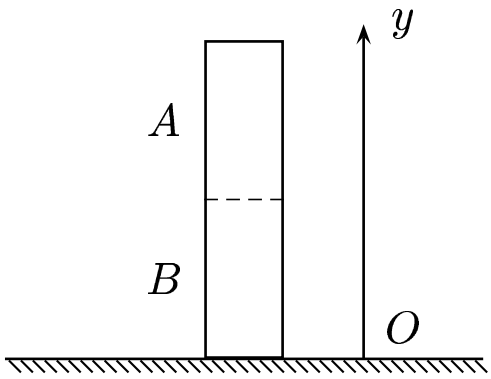
Consider the Empire State Building. For simplicity, assume that it is a tall uniform rectangular box.



Taking into account that gravitational acceleration decreases slightly with height, what would you expect?

A) $y_{cg} < y_{cm}$.
B) $y_{cg} = y_{cm}$.
C) $y_{cg} > y_{cm}$.

Divide the building into two equal parts as shown in the sketch.
Center of gravity is at:

$$y_{cg} = \frac{m_A\, g_A\, y_A + m_B\, g_B\, y_B}{m_A\, g_A + m_B\, g_B} .$$

Apparently the B part has more weight.
Answer **A**.