

dynamics explanation

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1 question b

$$y(t) = y_O + V_{y_0} t + 0.5at^2 \quad (1)$$

$$a = -g \quad (2)$$

$$V_{y_O} = 0 \quad (3)$$

$$y(t) = -0.5 \times 4 \times 6^2 \quad (4)$$

$y(t) = -72\text{m}$ (5) That means that the ball traveled 72m downwards which means that the height of the spaceship is 72m