

Answer on Question #38530, Physics, Mechanics | Kinematics | Dynamics

Question:

If you drop an aspirin and it takes 0.18 sec to hit the table, how high above the table was the aspirin when it was released?

Answer:

Aspirin moves with acceleration due to gravity with initial speed 0, therefore height equals:

$$h = \frac{gt^2}{2}$$

where g is acceleration due to gravity, t – time

$$h = \frac{1}{2} 9.81 \frac{m}{s^2} * (0.18s)^2 = 0.16 m$$

Answer: 0.16 m