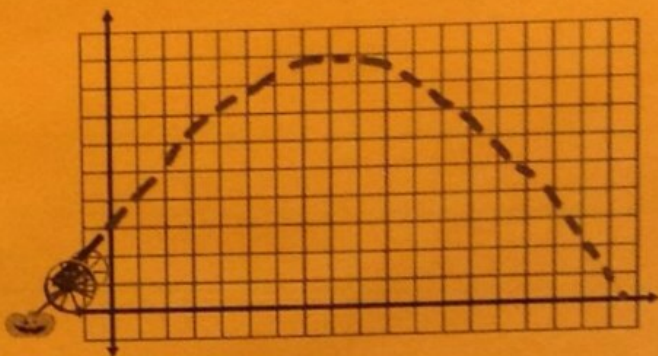


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Pumpkin Chunkin



$$h = h_0 + v_0 t - 16t^2$$

initial height initial velocity gravity pulls it back down

A pumpkin is launched into the air from a cannon that is 15 feet off the ground at an initial upward velocity of 90 feet per second.

Rule: $h = 15 + 90t - 16t^2$

What is the height of the pumpkin after 3 seconds?

$$h = 15 + 90(3) - 16(3)^2$$

$$(h = 141 \text{ feet})$$

When will the pumpkin hit the ground?

About 5.7 seconds

What is the maximum height of the pumpkin?

About 141.56 feet