

Problem Solving Week 7

Foundation:

James, Kevin and Leon are brothers.

Kevin is twice the age of James.

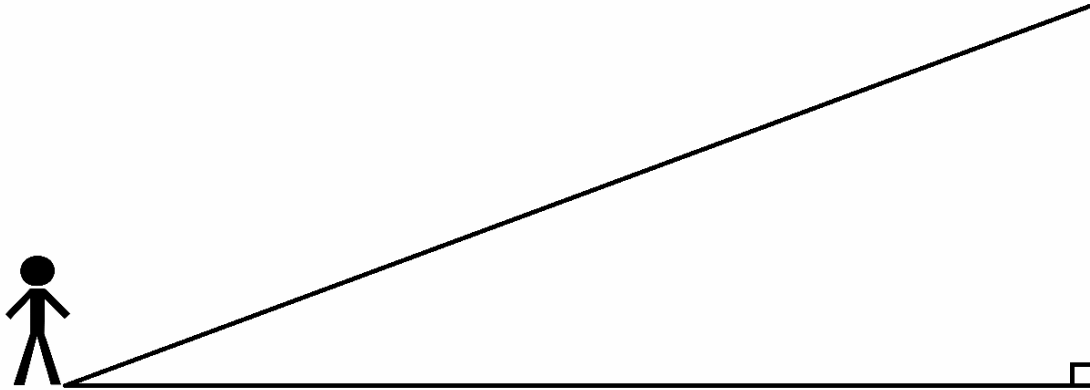
Leon is 3 years older than James.

The current combined age of the three brothers is 87.

How old was Leon two years ago?

Higher:

Billy is standing at the bottom of a ramp as shown below.



The ramp has a vertical height of 5 meters makes an angle of 30° with the ground.

Given that Billy can walk at 1.3 meters per second on an incline, find the time it will take him to walk from the bottom of the ramp to the top of the ramp.

Give your answer to the nearest 100^{th} of a second.