

## Cycle 14 Kinematics

### Reaction Time Activity

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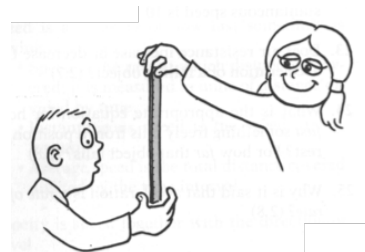
Idea and drawing credit: Paul Hewitt, Conceptual Physics.

Purpose: To calculate your reaction time.

When the other person drops the ruler, grab it as quickly as you can.

FOR A FAIR TEST, DO NOT GRAB EARLY.

At what mark did you grab the ruler? (Convert to meters!) \_\_\_\_\_ m



Assuming free fall, what is the acceleration of the ruler while in the air? \_\_\_\_\_ m/s/s  
(Be careful about direction!)

There is one other value you know about the ruler's motion. What is it? \_\_\_\_\_ = \_\_\_\_\_

Choose an equation of kinematics that will relate what you know to the time of the ruler's fall. Write it below.

Solve for the time for the ruler to fall (which will also be your reaction time.)

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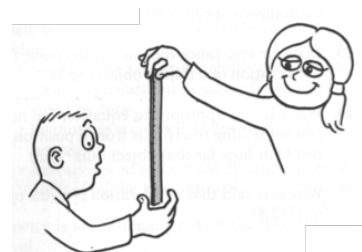
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