

Name _____ Date _____ Period _____

Reaction Time & Hang Time Activity

1. Compare your reaction time with that of one's in your group. Catch a meter stick that is dropped between your pointer finger and thumb. Let one of your group members hold the meter stick right above your fingers and without telling you, drop it. The number of centimeters that pass through your fingers depends on your reaction time. After the meterstick is dropped, close your fingers as quickly as possible to catch the stick. Do this three times and record your results. Now calculate the average distance the meterstick fell and calculate your average reaction time. Show all calculations below.

Trial 1 Δy : _____ m

Trial 2 Δy : _____ m

Trial 3 Δy : _____ m

Average Δy : _____ m

Equation used:

Work using average Δy :

Answer: _____

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Trial 1 Δy : _____ m

Trial 2 Δy : _____ m

Trial 3 Δy : _____ m

Average Δy : _____ m

Equation used:

Work using average Δy in meters:

Answer: _____

2. Calculate your personal “hang time,” the time your feet are off the ground during a vertical jump. A group member will measure your standing reach (floor to highest point you can reach up to) and record it below. Next you will jump as high as you can with a piece of masking tape in your hands. When you reach the highest point during your jump, slap the tape against the wall to mark how high you have jumped. Now measure the Δy from the ground to the tape and record the results in “Trial 1 Δy .” Do three trials again for this activity. Average the Δy from trial 1 – 3 and subtract the “standing reach distance” to get the average height that you jump. Using this values calculate your “hang time.” Show all calculation below.

Standing reach distance: _____ m

Trial 1 Δy : _____ m

Trial 2 Δy : _____ m

Trial 3 Δy : _____ m

Average Height Jumped: _____ m

Equation(s) used:

Work using height jumped in meters:

Hang Time: _____

2. Calculate your personal “hang time,” the time your feet are off the ground during a vertical jump. A group member will measure your standing reach (floor to highest point you can reach up to) and record it below. Next you will jump as high as you can with a piece of masking tape in your hands. When you reach the highest point during your jump, slap the tape against the wall to mark how high you have jumped. Now measure the Δy from the ground to the tape and record the results in “Trial 1 Δy .” Do three trials again for this activity. Average the Δy from trial 1 – 3 and subtract the “standing reach distance” to get the average height that you jump. Using this values calculate your “hang time.” Show all calculation below.

Standing reach distance: _____ m

Trial 1 Δy : _____ m

Trial 2 Δy : _____ m

Trial 3 Δy : _____ m

Average Height Jumped: _____ m

Equation(s) used:

Work using height jumped in meters:

Hang Time: _____