

Name _____
 SI Physics
 Period _____

Date _____
 Lab #23 (30 pts)
 Mrs. Nadworny

Partners: _____

Due Date: _____

Personal Power Rating

NO Lab Write-Up Required

Purpose:

- To determine your personal power rating and compare it to your partner's.

Procedure: (3 pts)

- Convert your _____ in _____ to your _____ in _____. Record in data table.
- Calculate your _____. Record in data table.
- Measure the total _____ of the stairs. Estimate to the nearest tenth of a centimeter.
- Run or walk up the stairs at _____ and record the _____ it takes you.
- Repeat for two more trials.

Data Collection: (9 pts)

Trial	Mass (kg)	Weight (N)	Height of stairs		Time (s)
			(cm)	(m)	
			± _____	± _____	
1					
2					
3					
average					

Data Processing: Answer all questions below using the GUESS method and appropriate significant figures.

- Calculate the work done as you climbed the stairs. (5 pts)
- Calculate your average power rating as you climbed the stairs. (5 pts)
- Calculate your average speed as you climbed the stairs. [Do NOT use $v=d/t$.] (5 pts)
- Compared to my partner I did (more, less, the same) work in (more, less, the same) time, making me (more, less, equally) powerful. (3 pts)