

SPASH PHYSICS				NAMES:			
How Fast Can You Work?							
POWER LAB				PERIOD:			
Purpose:	To calculate your POWER (Watts, and Horsepower) in lifting a 3.40 kg mass a distance of 1 meter for three different diameter tubes.						
Procedure:	Diagram & short explanation						
Note:	1 HP = 746 watts						
Data Table:	(calculate)	(measure)	(calculate)	(calculate)	(calculate)		
Name	Tube diameter	Work (J)	Time (s)	Power (Watts)	Power (Kw)	Power (HP)	
Nate	small	31.36	15.18	2.07	0.00207		
	medium	11	3.38	3.24			
	large	11	6.6	4.75			
	small						
	medium						
	large						
	small						
	medium						
	large						
Calculations:	(all four calculations)		$\frac{W}{T}$	$\frac{Kw}{HP}$			
Questions:							
	1. Which diameter tube did you have the most power with and why?						
	2. Comment about your horsepower (is it what you expected)?						
Conclusion:							
Summary:							

$$1 Kw = 1,000 W$$

$$m \quad \Delta S \quad J \\ 3.2 Kg \quad 1m \quad 9.8 \frac{m}{s^2}$$

$$P = \frac{W}{T} = \frac{31.36 J}{15.18 s}$$

$$P = 2.07 W$$