

B Physics Interactive Quiz : Simple Harmonic motion

Name: _____

#	1	question	Answer			0	<--score
# 1	4	kg is the mass of a weight added to a spring that then stretches 20 cm. Find the value for k for this spring		196	100	0	
# 2	4	If the same mass is then pulled down an extra 20 cm, find the upwards force from the spring in newtons		39.2	100	0	
# 3	4	you now let go of the mass, how many seconds will it take until it returns to the same place?		8.97e-1	100	0	
# 4	4	using the information above, what is the energy stored when it is stretched the amount in the question above?		3.92	100	0	
# 5	4	what will be the velocity of the mass when x is 10 cm below equilibrium?		1.2124	100	0	
# 6	5	kg is the mass of a pendulum of length 3 meters. If it is raised 30 cm, what is the max PE of the mass?		14.7	100	0	
# 7	5	how fast will the mass be traveling at the bottom?		2.4249	100	0	
# 8	5	How many seconds will it take to make a complete period?		3.4746	100	0	
# 9	5	If the same experiment were done on the moon where g is 1.8 m/ss, what will the period be?		8.1074	100	0	
# 10	2.5	hz is the frequency of an oscillator with amplitude of 0.05 m. What is the period of the oscillations?		0.4	100	0	

Extra Credit: Explain how a pendulum could be used to locate underground oil, uranium or moving lava. Include diagrams with your explanation.