

UNIVERSITY OF ALABAMA
Department of Physics and Astronomy

PH 125 / LeClair

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Quiz 6

Instructions:

1. Answer both questions below. Both have equal weight.
2. Express your answer with the appropriate units and significant digits
3. Show your work for full credit.

1. A block of mass m is connected to a spring with force constant k . If the spring is compressed by an amount x from equilibrium and released, what is the speed of the block as it passes through the equilibrium position of the spring?

2. A pendulum consists of a mass m hanging from a cord of length L . Ignore the mass of the cord and air resistance. If the pendulum is released from an angle θ , what is the speed of the mass when the string is vertical?