KENTUCKY PHYSICS · KENTUCKY

Kentucky Physics

Practice Test

Unit 2: Work, Energy, and Momentum

10 Questions

Original practice test based on the Kentucky curriculum. Work through each question, then check your answers at the end.

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

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Question 1

A 2 kg object moves at 7 m/s. Its momentum, in kilogram meters per second, is ____

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Question 2

A force of 50 N acts for 4 s. The impulse, in newton seconds, is ____

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Question 3

If an object height doubles while its mass stays the same, its gravitational potential energy

A) halves

B) quadruples

C) stays the same

D) doubles

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Question 4

In an inelastic collision, momentum is conserved but total kinetic energy is

A) also conserved

B) not conserved

C) always increased

D) always zero

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Question 5

A 2 kg object moving at 6 m/s collides and sticks to a stationary 4 kg object. Their common speed is

A) 6 m/s

B) 3 m/s

C) 2 m/s

D) 12 m/s

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Question 6

Power is defined as work divided by

A) distance

B) force

C) time

D) mass

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Question 7

A 5 kg object moving at 2 m/s has kinetic energy 10 J. If its speed becomes 4 m/s, its kinetic energy is

A) 20 J

B) 10 J

C) 80 J

D) 40 J

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Question 8

Use $g = 10\ \text{m/s}^2$. An object dropped from 5 m reaches the ground with speed

A) 5 m/s

B) 25 m/s

C) 50 m/s

D) 10 m/s

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Question 9

A force of 15 N moves an object 6 m. The work done, in joules, is ____

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Question 10

An object of mass 8 kg moves at 2.5 m/s. Its momentum, in kilogram meters per second, is ____

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ANSWER KEY

1.	14	**5.**	C	**8.**	D
2.	200	**6.**	C	**9.**	90
3.	D	**7.**	D	**10.**	20
4.	B				

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