SOUTH DAKOTA PHYSICS · UNIT 2

Work, Energy, and Momentum — Practice Test

South Dakota Physics • 10 questions

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.

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

ANSWER _____

Understand It with Pulse | Flag a mistake

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

ANSWER _____

Understand It with Pulse | Flag a mistake

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

Understand It with Pulse | Flag a mistake

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

Understand It with Pulse | Flag a mistake

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

Understand It with Pulse | Flag a mistake

6 **Power is defined as work divided by**

- A distance
- B force
- C time
- D mass

Understand It with Pulse | Flag a mistake

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

Understand It with Pulse | Flag a mistake

8 **Use g = 10 $\frac{m}{s^2}$. 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

Understand It with Pulse | Flag a mistake

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

ANSWER _____

Understand It with Pulse | Flag a mistake

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

ANSWER _____

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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