SASKATCHEWAN PHYSICS 30 · UNIT C · 25 QUESTIONS

Conservation Laws - Energy and Momentum — Practice Test

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 steel beam of mass 2 kg is lifted 10 m . Using g = 9.8 m per second squared , its gain in gravitational potential energy , in joules , is _____**



ANSWER

Understand It with Pulse | Flag a mistake

2 **A mass of 2 kg moves at 10 m per second. Its kinetic energy, in joules, is ____**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **A mass of 3 kg moves at 8 m per second. Its momentum, in kg m per second, is ____**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **Impulse equals**

A change in momentum

B mass only

C force only

D velocity only

Understand It with Pulse | Flag a mistake

5 **A collision where kinetic energy is conserved is called**



A work energy theorem

B kinetic energy

C elastic collision

D gravitational potential energy

Understand It with Pulse | Flag a mistake

6 **A collision where kinetic energy is not conserved is called**

A kinetic energy

B gravitational potential energy

C elastic potential energy

D inelastic collision

Understand It with Pulse | Flag a mistake

7 **Change in momentum, equal to force times time is called**

A inelastic collision

B impulse

C work energy theorem

D kinetic energy

Understand It with Pulse | Flag a mistake

8 **Dropping an object converts gravitational potential energy mainly into**

A heat only

B chemical energy

C kinetic energy

D sound only

Understand It with Pulse | Flag a mistake

9 **Energy cannot be created or destroyed, only transferred is called**

A momentum

B impulse

C elastic collision

D conservation of energy

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10 **Energy of motion is called**



A kinetic energy

B elastic potential energy

C conservation of energy

D conservation of momentum

Understand It with Pulse | Flag a mistake

11 **A rock held above the ground has energy because of its height. This energy is called**

A conservation of energy

B conservation of momentum

C gravitational potential energy

D momentum

Understand It with Pulse | Flag a mistake

12 **Energy stored in a stretched or compressed spring is called**

A conservation of momentum

B elastic potential energy

C momentum

D impulse

Understand It with Pulse | Flag a mistake

13 **In a closed system, total momentum before a collision compared with after is**

A greater

B equal

C smaller

D zero

Understand It with Pulse | Flag a mistake

14 **In a perfectly inelastic collision, objects**

A bounce apart unchanged

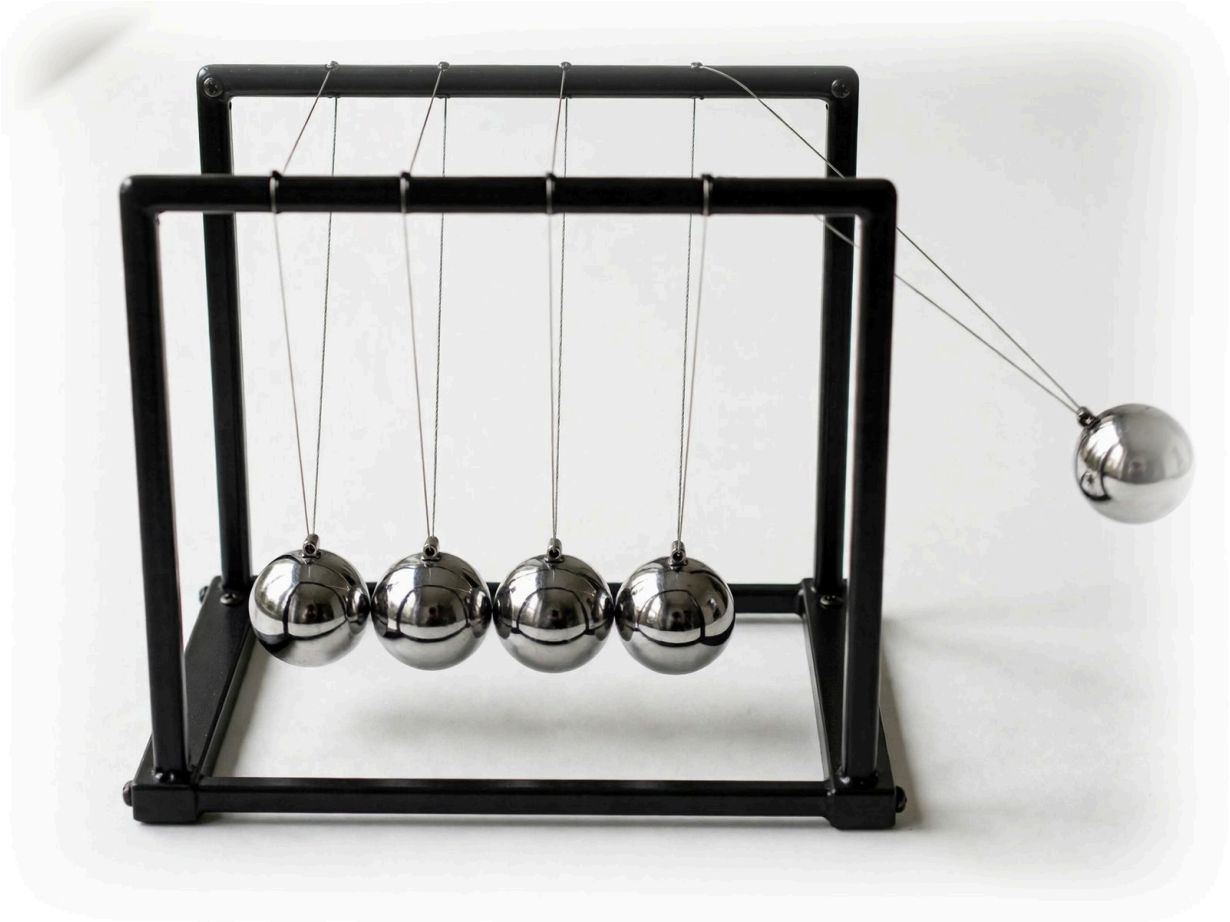
B stop always

C stick together

D gain energy

Understand It with Pulse | Flag a mistake

15 **In an elastic collision, kinetic energy is**



A lost completely

B doubled

C created

D conserved

Understand It with Pulse | Flag a mistake

16 **Mass times velocity is called**

A elastic collision

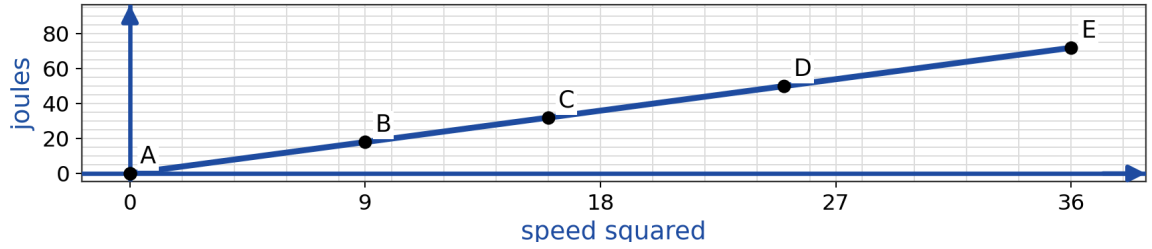
B inelastic collision

C work energy theorem

D momentum

Understand It with Pulse | Flag a mistake

17 **The graph shows kinetic energy against speed² . The kinetic energy at speed² 25 , in joules , is _____**



ANSWER _____

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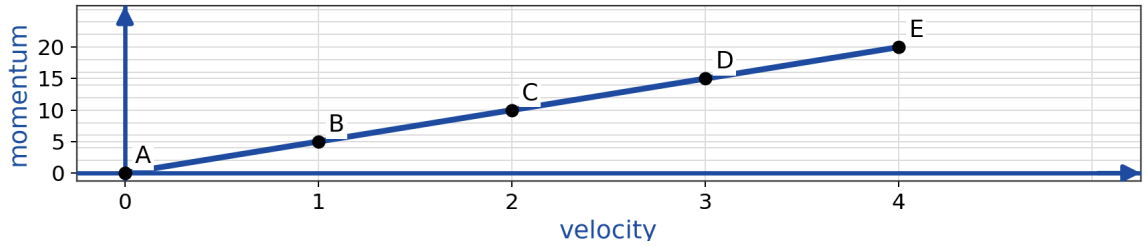
18 **The graph shows momentum against velocity for one mass. Doubling velocity doubles**



- **A** momentum
- **B** mass
- **C** time
- **D** energy only

Understand It with Pulse | Flag a mistake

19 **Total momentum stays constant when no net external force acts is called**

- **A** impulse
- **B** conservation of momentum
- **C** elastic collision
- **D** inelastic collision

Understand It with Pulse | Flag a mistake

20 **A rock of mass 5 kg is lifted 4 m . Using g = 9.8 m per second squared , its gain in gravitational potential energy , in joules , is _____**



ANSWER _____

Understand It with Pulse | Flag a mistake

21 **A mass of 4 kg moves at 5 m per second. Its kinetic energy, in joules, is _____**

ANSWER _____

Understand It with Pulse | Flag a mistake

22 **A mass of 10 kg moves at 5 m per second. Its momentum, in kg m per second, is ____**

ANSWER _____

Understand It with Pulse | Flag a mistake

23 **A mass of 10 kg is lifted 3 m . Using g = 9.8 m per second squared , its gain in gravitational potential energy , in joules , is ____**

ANSWER _____

Understand It with Pulse | Flag a mistake

24 **A mass of 10 kg moves at 6 m per second. Its kinetic energy, in joules, is ____**

ANSWER _____

Understand It with Pulse | Flag a mistake

25 **A bowling ball of mass 4 kg moves at 12 m per second. Its momentum, in kg m per second, is ____**



ANSWER

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. 196
2. 100
3. 24
4. A
5. C
6. D
7. B
8. C
9. D
10. A
11. C
12. B
13. B
14. C
15. D
16. D
17. 50
18. A
19. B
20. 196
21. 50
22. 50
23. 294
24. 180
25. 48

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