NEWFOUNDLAND AND LABRADOR PHYSICS 2204 · UNIT C

Momentum and Energy — Practice Test

Newfoundland and Labrador Physics 2204 • 25 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 4 kg object moves at 6 m per second. Its momentum, in kilogram metres per second, is**



ANSWER _____

Understand It with Pulse | Flag a mistake

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

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **A 10 kg object is 5 m above the ground . Its gravitational potential energy , using g = 9.8 , in joules , is**

ANSWER

Understand It with Pulse | Flag a mistake

4 **A force of 50 N moves an object 2 m in the direction of the force. The work done, in joules, is**

ANSWER

Understand It with Pulse | Flag a mistake

5 **Work of 200 J is done in 4 s. The power, in watts, is**



ANSWER

Understand It with Pulse | Flag a mistake

6 **Review the key idea. In a closed system with no external forces, total momentum is**

- A doubled
- B conserved
- C halved
- D zero always

Understand It with Pulse | Flag a mistake

7 **A 2 kg object moving at 3 m per second sticks to a stationary 3 kg object. Their common speed, in metres per second, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

8 **A force of 15 N acts for 4 s. The impulse, in newton seconds, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

9 **A 2 kg object changes speed by 5 m per second. The change in momentum, in kilogram metres per second, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

10 **Use what the term means. Work is done only when a force causes**



A heat only

B displacement in the direction of the force

C no motion

D a change in mass

Understand It with Pulse | Flag a mistake

11 **A machine has useful output 90 J from input 300 J. Its efficiency, as a percent, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

12 **A 1 kg object falls 20 m . Ignoring air resistance , the kinetic energy gained , in joules , using g = 9.8 , is**

ANSWER _____

Understand It with Pulse | Flag a mistake

13 **Apply the rule. Momentum is a**

A vector quantity

B scalar quantity

C unit of energy

D force

Understand It with Pulse | Flag a mistake

14 **Consider the rule in general. In an elastic collision, kinetic energy is**

- **A** lost completely
- **B** conserved
- **C** doubled
- **D** converted to mass

Understand It with Pulse | Flag a mistake

15 **A 3 kg object moves at 10 m per second. Its momentum, in kilogram metres per second, is**



ANSWER

Understand It with Pulse | Flag a mistake

16 **A 8 kg object moves at 3 m per second. Its kinetic energy, in joules, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

17 **A 5 kg object is 10 m above the ground . Its gravitational potential energy , using g = 9.8 , in joules , is**

ANSWER _____

Understand It with Pulse | Flag a mistake

18 **A force of 30 N moves an object 4 m in the direction of the force. The work done, in joules, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

19 **Work of 150 J is done in 5 s. The power, in watts, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

20 **Review the concept. In a closed system with no external forces, total momentum is**



A doubled

B halved

C zero always

D conserved

Understand It with Pulse | Flag a mistake

21 **A 3 kg object moving at 4 m per second sticks to a stationary 3 kg object. Their common speed, in metres per second, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

22 **A force of 20 N acts for 2 s. The impulse, in newton seconds, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

23 **A 5 kg object changes speed by 2 m per second. The change in momentum, in kilogram metres per second, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

24 **Consider the principle in general. Work is done only when a force causes**

A heat only

B no motion

C a change in mass

D displacement in the direction of the force

Understand It with Pulse | Flag a mistake

25 **A machine has useful output 80 J from input 200 J. Its efficiency, as a percent, is**



ANSWER

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	24	**10.**	B	**19.**	30
2.	100	**11.**	30	**20.**	D
3.	490	**12.**	196	**21.**	2
4.	100	**13.**	A	**22.**	40
5.	50	**14.**	B	**23.**	10
6.	B	**15.**	30	**24.**	D
7.	1.2	**16.**	36	**25.**	40
8.	60	**17.**	490		
9.	10	**18.**	120		

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