ALASKA PHYSICS · UNIT 2 · 10 QUESTIONS

Work, 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 9 kg object moves at 3 m/s. Its momentum is**

- **A** 12 kg m/s
- **B** 27 kg m/s
- **C** 3 kg m/s
- **D** 81 kg m/s

Understand It with Pulse | Flag a mistake

2 **A force of 18 N acts for 3 s. The impulse delivered is**

A 6 N s

B 54 N s

C 21 N s

D 15 N s

Understand It with Pulse | Flag a mistake

3 **In an inelastic collision, the total kinetic energy after the collision compared with before is**

A zero

B larger

C the same

D smaller

Understand It with Pulse | Flag a mistake

4 If the speed of an object triples, its kinetic energy becomes

- A nine times
- B three times
- C four times
- D half

Understand It with Pulse | Flag a mistake

5 A force of 20 N moves an object 9 m. The work done, in joules, is _____

ANSWER _____

Understand It with Pulse | Flag a mistake

6 A 4 kg object moves at 7 m/s. Its kinetic energy, in joules, is _____

ANSWER _____

Understand It with Pulse | Flag a mistake

7 **A spring with spring constant 150 N/m is compressed 0.2 m. The spring force, in newtons, is _____**

ANSWER _____

Understand It with Pulse | Flag a mistake

8 **An object of mass 11 kg moves at 4 m/s. Its momentum, in kilogram meters per second, is _____**

ANSWER _____

Understand It with Pulse | Flag a mistake

9 **A 3 kg object moving at 8 m/s collides and sticks to a stationary 9 kg object. Their common speed is**

A 8 m/s

B 24 m/s

C 2 m/s

D 11 m/s

Understand It with Pulse | Flag a mistake

10 **A machine gives 150 J of useful work from 250 J of input energy. Its efficiency is**

A 100%

B 40%

C 60%

D 150%

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	B	**5.**	180	**9.**	C
2.	B	**6.**	98	**10.**	C
3.	D	**7.**	30		
4.	A	**8.**	44		

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