



Kinetic Energy

20 Questions


NAME : _____

CLASS : _____

DATE : _____

1. The faster an object moves, the _____ kinetic energy it has.

- ☐ a) more ☐ b) less
☐ c) none of the above ☐ d) all of the above

2.  A cheetah can run briefly with a speed of 31.0 m/s. Suppose a cheetah with a mass of 47.0 kg runs at this speed. What is the cheetah's kinetic energy?

- ☐ a) 1457 Joules ☐ b) 22,584 Joules
☐ c) 15 Joules ☐ d) 45,167 Joules

3. What would have the greatest kinetic energy?

- ☐ a) A car driving down a hill. ☐ b) A person running down a hill.
☐ c) A ball rolling down a hill.

4. The statement that "the energy within a system remains constant and cannot be created or destroyed, only transformed" best sums up _____.

- ☐ a) Something Mr. Lance likes to say. ☐ b) Life
☐ c) Law of Conservation of Energy ☐ d) The scientific method
☐ e) Newton's Third Law

5. Which is the best example that something has kinetic energy?

- ☐ a) a. a car parked on a steep hill
- ☐ b) b. a tennis ball rolling across the court
- ☐ c) c. a picture hanging on the wall
- ☐ d) d. a piece of coal before it's burned

6. What is energy?

- ☐ a) something that picks up things, like a magnet.
- ☐ b) Motion of an object
- ☐ c) ability to do work
- ☐ d) magic rays of sunshine that come down when you're feeling blue.

7. What is kinetic energy?

- ☐ a) energy of work
- ☐ b) energy of motion
- ☐ c) energy of gravity
- ☐ d) energy of power

8. The SI unit in which kinetic energy is measured is

- ☐ a) Newton
- ☐ b) Kilogram
- ☐ c) Joules
- ☐ d) Metres per second

9. Calculate the kinetic energy of a moving 4 kg object travelling at a velocity of 3 m/s.

- ☐ a) 18 J
- ☐ b) 36 J
- ☐ c) 12 J
- ☐ d) 6 J

10. How much kinetic energy does a moving 6 kg object have if it moves with a velocity of 3 m/s?

- ☐ a) 27 J
- ☐ b) 18 J
- ☐ c) 9 J
- ☐ d) 2 J

11. What is the kinetic energy of a 4kg shotput thrown with a velocity of 13m/s

☐ a) 676 J ☐ b) 52 J
☐ c) 17J ☐ d) 338 J

12. What is the kinetic energy of a ball with a mass of 5kg rolling at 10m/s

☐ a) 50 J ☐ b) 500 J
☐ c) 250 J ☐ d) 25 J

13. A 60 kg Ewok is travelling at a constant speed of 7 m/s. What is its kinetic energy in KJ?

☐ a) 1.47 KJ ☐ b) 210 KJ
☐ c) 147 KJ ☐ d) 1470 KJ

14. What is the kinetic energy of a 1500 gram object moving at a velocity of 100 m/s

☐ a) 112.5 J ☐ b) 7,500,000 J
☐ c) 75 J ☐ d) 7,500 J

15. What is the kinetic energy of a 25,000g object moving at a velocity of 2.5 m/s

☐ a) 78.125 J ☐ b) 31250 J
☐ c) 781.25 J ☐ d) 78,125 J

16. How much kinetic energy does a person of mass 50kg running at 3m/s have? Provide your answer in KJ.

☐ a) 225 KJ ☐ b) 0.225 KJ
☐ c) 75 KJ ☐ d) 0.075 KJ

17. What is the kinetic energy of a 30,000 g object moving at a velocity of 4 m/s. Provide you answer in KJ

☐ a) 240,000 KJ

☐ b) 240 KJ

☐ c) 2400 KJ

☐ d) 0.24 KJ

18. Can energy be destroyed?

☐ a) no

☐ b) yes

19. Can energy be changed?

☐ a) yes

☐ b) no

20. Energy can not be created or destroyed, only converted from one form to another.

☐ a) true

☐ b) false

Answer Key

1. a
2. b
3. a
4. c
5. b

6. c
7. b
8. c
9. a
10. a

11. d
12. c
13. a
14. d
15. a

16. b
17. d
18. a
19. a
20. a