

QUIZZ Worksheets

GCSE Physics - Forces and Motion

Total questions: 20

Worksheet time: 40mins

Instructor name: Luke Gilly

Name Class Date

1. What is 30 m/s in km/h? (type the number only without units)

Ans. _____

2. What is the momentum of a 500g car travelling at 30 m/s? Give your answer in kgm/s without the units. (momentum = mass x velocity)

Ans. _____

3. What are the units of power?

a) Kilowatt-hours

b) Watts

c) Amps

d) Joules

e) Newtons

4. The rate of energy transfer (energy divided by time) is called what? (Begins with a p)

Ans. _____

5. What is the kinetic energy of a 800g toy moving at 10m/s? Give your answer in Joules, but only type the number - no units.

a) 4

b) 4000

c) 8

d) 40

6. Gravitational potential energy is equal to mass x gravitational field x _____?

Ans. _____

7. What quantity is measured in kilograms?

Ans. _____

8. What is the GPE of a 60kg man standing on top of a 25cm high stool? State the units with your answer (a single letter is fine).

Ans. _____

9. What is the correct formula for force?

a) Mass x distance

b) Mass x velocity

c) Mass x acceleration

d) Mass x weight

e) Mass x time

10. An object with a mass of 5kg is dropped from a height of 100m. What is the impact velocity with the ground, in metres per second, to one decimal place? Do not type the units.

Ans. _____

11. If two cars are travelling towards each other, which of these statements is true.

a) One has a negative kinetic energy

b) One has a negative momentum

c) One has a negative mass

d) One has a negative time

e) One has a negative distance

12. What is 30 km/h in m/s given to 1 decimal place? Do not type the units.

a) 9.4

b) 9.8

c) 8.3

d) 108

e) 6.9

13. What is the density of a cube with dimensions of 4cm x 4cm x 4cm with a mass of 16g? Give your answer in g/cm^3 without typing the units.

Ans. _____

14. Which of these is not a force?
- a) Drag
 - b) Thrust
 - c) Friction
 - d) Kinetic
 - e) Tension
15. Which of these are measured in Joules? Tick all that apply (two answers).
- a) Thrust
 - b) Kinetic energy
 - c) Weight
 - d) Power
 - e) Work done
16. Which of these does not affect the time taken for an object to fall from a height?
- a) acceleration
 - b) distance
 - c) initial speed
 - d) final speed
 - e) mass
17. What are the two quantities needed to work out momentum and also kinetic energy?
- a) time
 - b) distance
 - c) mass
 - d) velocity
 - e) acceleration
18. Which has the highest density? Do not guess, use your day to day knowledge of each substance.
- a) aluminium
 - b) gold
 - c) copper
 - d) oil
 - e) water

19. Which of these is not an equation for energy?

a) mv

b) Fd

c) Pt

d) mgh

e) $\frac{1}{2}mv^2$

20. Which of these is not a non-renewable energy source for a power station?

a) woodchips

b) nuclear

c) oil

d) coal