

ST name: G 4 \

Q 1: Put number of meaning near its term:

- Any change of position
- How fast an object's position changes over time.
- The speed and direction of an object.
- Change in velocity over time
- Any push or pull
- The tendency of an object in motion to stay in motion or of an object at rest to stay at rest.
- Force that pulls two objects toward each other
- Force between surfaces that slows objects or stops them from moving.
- The location of an object.

(.....) Velocity
(.....) Speed
(.....) Motion
(.....) Force
(.....) acceleration
(.....) Gravity
(.....) Friction
(.....) Inertia
(.....) Position

Q2: Choose speed of a car in m/s. $Speed = distance \div time$. السرعة = المسافة ÷ الزمن

Speed	A- 100 meters in 10 seconds	$A-10 \div 100 = 1/10$ m/s	$B-100 \div 10 = 10$ m/s	Distance is= A-10s B-100m
	B- 300 meters in 10 seco	$A-10 \div 300 = 1/30$ m/s	$B-300 \div 10 = 30$ m/s	Distance is= A-300m B-10s
Velocity?	C- 200 km/ 2 hours West	$A-200 \div 2 = 100$ km/h West	$B- 200 \div 2 = 100$ km/h	Direction is= A-200 km B-200m

Q3: Choose correct answer:

- 1-An object that is sitting still has forces acting on it.
a-Unbalanced b- Balanced
- 2-Objects in motion tend to stay in motion because of the property of
a- Inertia b- Gravity

3-The distance traveled in an amount of time is called

a-Motion

b- Speed

4- Describes when a moving object speeds up.

a-Acceleration

b- Velocity

5-What causes heat when rubbing your hands together?

a-Gravity

b- Friction

6- If you drop a rock in a lake, the rock will slow down because the water exerts....

A- Gravity

b- Less resistance

c- Drag forces

d- Velocity

7- A boy pushes on a box and moves it a way. This is an example of....

a- Balanced forces

b- Unbalanced forces

b- Potential energy

d-Chemical energy

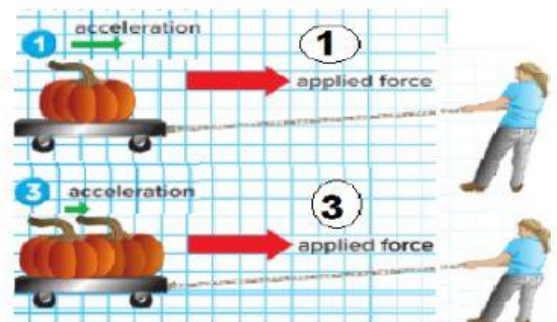
8- Look to picture choose correct answer to solve:

a- Acceleration in 3 greater than acceleration in 1

b- Acceleration in 3 double than acceleration in 1

c- Acceleration in 3 half than acceleration in 3

d- Acceleration in 1 equal acceleration in 3



9- How does friction affect a moving object?

a-Speeds it up

b- Slows it down

c- Has no effect

d-Pulls it downwards

Q4: Choose correct answer of total forces for each picture:

Sum Forces (same direction) = $F_1 + F_2$

Sum Forces (different direction) = big F_1 - small F_2



Total forces = **Unbalance Force**

$$A-400 - 200 = 200 \text{ N}$$

$$B-400 + 200 = 600 \text{ N}$$



Total forces = **Balance Force**

$$A-80 - 80 = 0 \text{ N}$$

$$B-80 + 40 + 80 = 200 \text{ N}$$



Total forces = **Balance Force**

$$A-200 - 200 = 0 \text{ N}$$

$$B-200 + 200 = 400 \text{ N}$$