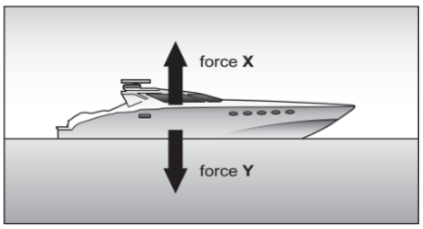
1. A boat is floating on water.
The boat is not moving forward.
The diagram shows two forces acting on the boat.



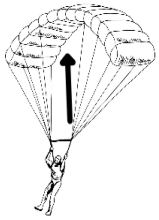
a. Name force **X** and force **Y**. [/2]

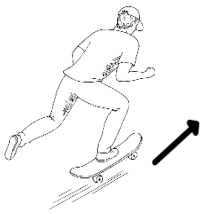
Force X :_____ **Force Y**: _____

b. Force **X** is equal to force **Y**.
What happens to the boat if force Y is **bigger** than force X? [/1]

_____

2. The diagrams show different types of forces. [/3]
On each diagram there is an arrow to show the direction of the force.
Write the name of the force **shown by the arrow**.





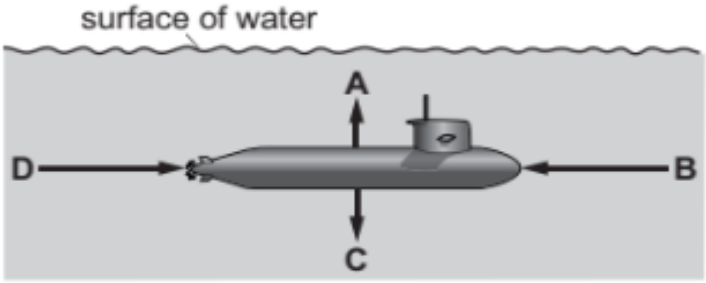
_____ _____ _____

3. A submarine travels underwater. [/2]
Name the forces acting on the submarine.

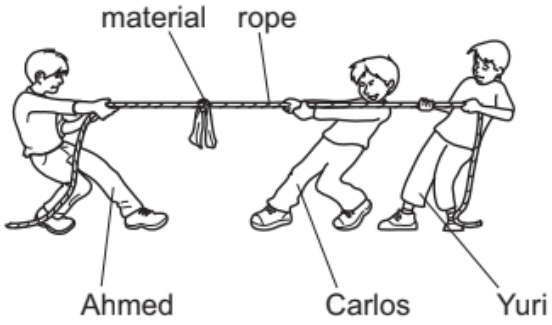
Force B is _____

Force D is _____

The submarine is moving in this direction.



4. Ahmed, Carlos and Yuri investigate forces.



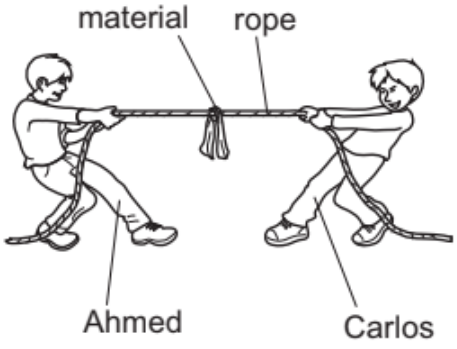
A piece of material is tied to the middle of the rope.
Ahmed, Carlos and Yuri all pull the rope with the same force.

a. In which direction will the material move? [/1]

Circle the correct answer.

not move

b. The boys repeat the investigation. [/1]



Only Ahmed and Carlos pull the rope.
They pull the rope with the same force.
Which direction will the material move?
Circle the correct answer.

not move

c. What is the unit for force? [/1]

_____

5. Sami wanted to find out which piece of paper would reach the ground first when released from the same height. Sami repeated the experiment two more times. These are his findings. [/2]

paper	time to reach the ground in seconds
folded paper	5
crumpled paper	3

a. What is the independent variable in this experiment.

Tick the correct answer.

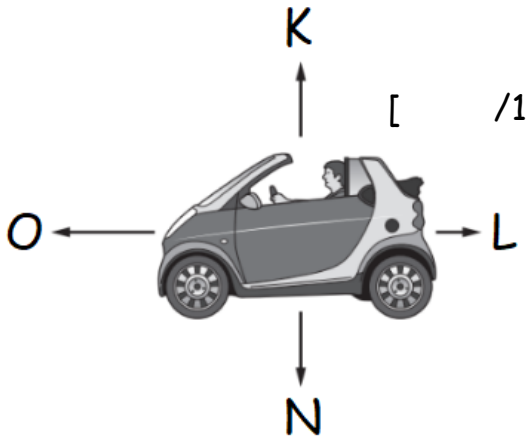
	same height
	surface area of the paper
	time to reach the ground

b. Why did he repeat his experiment two more times?

Tick the correct answer.

	to make sure it is a fair test
	to make sure his results are reliable

6. Look at the force diagram. [/1]

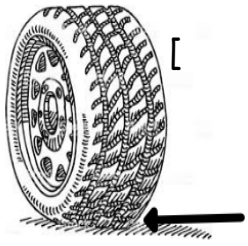


a. Force K and Force N are equal in size.
Explain how the force diagram shows this.

_____

_____

b. Name the force acting between the road and the car wheel. [/1]



_____

7. Write down the names of two forces that slow down moving objects. [/2]

a._____ b. _____

8. Explain [/2]

What happens to a moving object when **<u>unbalanced</u>** forces act on it.

Tick **<u>two</u>** correct boxes.

	continues moving in the same direction
	changes its speed
	continues moving at the same speed
	changes its direction

9. Sasha designed a parachute. [/1]

It is moving downwards very fast.

He wants to slow it down.

Explain what he should do in order to slow it down.

_____

_____

Good luck !

Revise your paper well.

Ms Nevine Sawalha