1. Pressure =

**A** force ÷ area **B** area ÷ force

**C** area + force **D** area - force

**[1]**



2. The lengths of a block of wood are 6cm, 4 cm and 3 cm.

On which side must the block be placed in order to exert the least pressure?

**A** 4 cm x 3 cm

**B** Any of the surfaces

**C** 6 cm x 4 cm

**D** 6 cm x 3 cm

**[1]**

3. What is the pressure exerted on a surface by a brick of weight 10 N with an area in contact with the surface of 20 cm2.

**A** 0.5 N/cm2 **B** 2 N/m2 **C** 200 N/m2 **D** 30 N/m2

**[1]**

4. The pressure in liquids and gases is caused by:

**A** the particles pressing down. **B** the particles pushing up.

**C** the particles moving sideways. **D** the particles moving in all directions and colliding with things.

**[1]**

5. The diagram shows a spurting cylinder with water spurting out at A, B and C.



Which one of the following statements is correct?

**A** The spout with the greatest pressure pushes the water furthest

**B** The pressure at spout A is greater than at spout B.

**C** The spout with the least pressure pushes the water furthest.

**D** Water at spout C travels the furthest because there is more water at the bottom of the cylinder.

**[1]**

6. A bicycle tyre contains gas. The tyre cannot expand (get bigger).

*Complete the following sentences by circling the correct word in each pair.*

 If you increase the temperature of the gas in the tyre, then the pressure will **decrease/increase**.

 This is because the particles in the gas are moving **faster/slower** and colliding **less/more** often.

 If air leaks out of the tyre, the gas pressure will **decrease/increase**.

 This is because there are **fewer/more** molecules to collide with the walls.

**[1]**

7. The atmospheric pressure at the top of Mount Everest is less than at sea level because

**A** There is more snow at the top of Mount Everest

**B** There is less gravity at the top of Mount Everest

**C** It is colder at the top of Mount Everest

**D** There is less air at the top of Mount Everest

**[1]**

8. The moment of a force is:

**A** its turning effect.

**B** how long it takes to work.

**C** how far it moves.

**D** the distance of a force from a pivot.

**[1]**

9. You are opening a can of paint with a screwdriver. You apply a force of 10 N, 20 cm from the pivot. What is the moment of the force?

**A** 2 Nm **B** 20 Nm

**C** 200 Nm **D** 2000 Nm

**[1]**

10. What is the distance from the pivot of the girl on the seesaw?



**A** 0.5 m **B** 2 m

**C** 1 m **D** 5 m



Total: \_\_\_\_\_ /10