

3.15 Pressure

Name:.....

1. Using the words **area** and **force**, complete the following formula for pressure.

Pressure = -----

2. Pressure is a measure of how much force is acting over a certain area. It is measured in _____.
3. Draw a diagram of the equipment that you would use to show how the pressure in a liquid changes with depth. Please label your diagram.

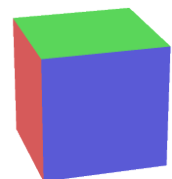


4. Sandra is planning to walk across soft ground that is easy to sink in. Should she wear flat shoes or high heels?

Why? _____

5. A box lies flat on the ground. The area touching the ground is 10 m^2 . If the box weighs 50 N , what is the pressure it puts on the ground? (Hint: remember that weight is a force.)

6. A box lies flat on the ground. Each side has a length of 2 m . If the box weighs 56 N , what is the pressure it puts on the ground?

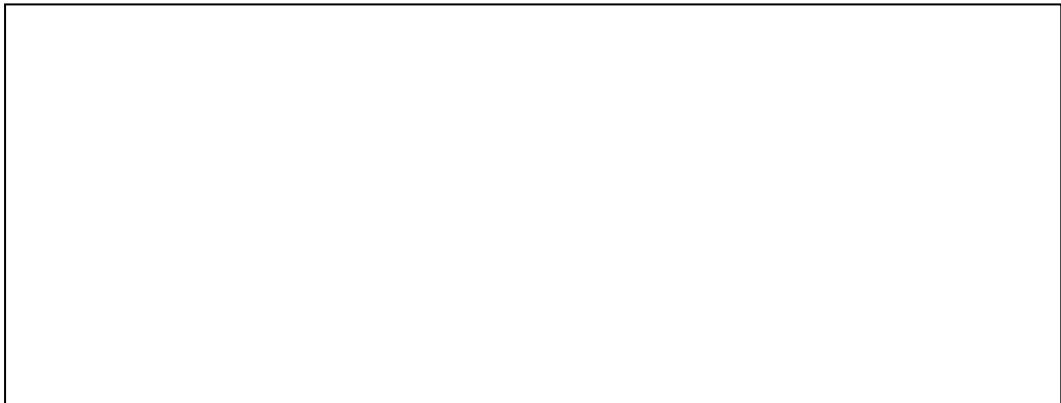


7. If an object weighing 100 N exerts a pressure of 5 Pa on a table, what is the area of the side of the object facing the table?

8. Outline from your own experience where you think pressure is important in everyday life.

9. Predict what might happen to the air in your space shuttle if you were travelling in space and a tiny meteor cut a hole right through your shuttle.

10. Using a diagram to show your idea, design an experiment to show how you could measure the effect of ball pressure on the height that it bounces.



- (a) List what you need:

- (b) What measurements or calculations will you make?

- (c) How accurate do you think your method will be?
