

Pressure

Question Paper

Course	CIE IGCSE Physics
Section	1. Motion, Forces & Energy
Topic	Pressure
Difficulty	Hard

Time Allowed 10

Score /5

Percentage /100

Question 1

The table gives four combinations of the force applied to a surface and the area over which it acts.

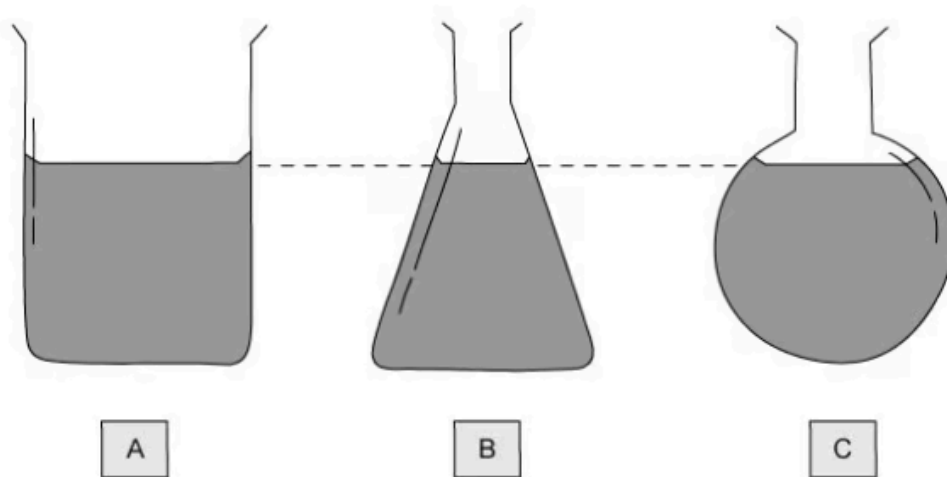
Which row gives the smallest pressure exerted on the surface?

	Force / N	Area / m ²
A	40	0.5
B	40	2.0
C	80	0.5
D	80	2.0

[1 mark]

Question 2

Three beakers of water are placed on a table. The depth of water in each container is the same.



In which container does the water exert the greatest pressure on the base of the container?

- A. A
- B. B
- C. C
- D. None, the pressure is the same in all three.

[1 mark]

Question 3

A person walking through snow sinks into it.

The person makes a change so that they do not sink as far next time they go out.

What do they do?

- A.** Crouch as they walk to lower their centre of mass
- B.** Run as fast as they can to increase the power they dissipate
- C.** Wear shoes with a much larger area on the bottom to increase the area of their feet in contact with the snow
- D.** Wear a heavy backpack to increase their weight and so make them more stable .

[1 mark]

Question 4

There is a significant risk to submarines which dive to very great depths.

Why is it dangerous to do this?

- A.** The temperature of water is too low at greater depths.
- B.** The density of water is less at greater depths
- C.** The pressure is too great at greater depths.
- D.** The gravitational pull increases at greater depths

[1 mark]

Question 5

The ornament in Fig. 1 is designed to balance in either of the positions shown.

Calculate the difference in the pressure on the ground when the ornament's position is changed.

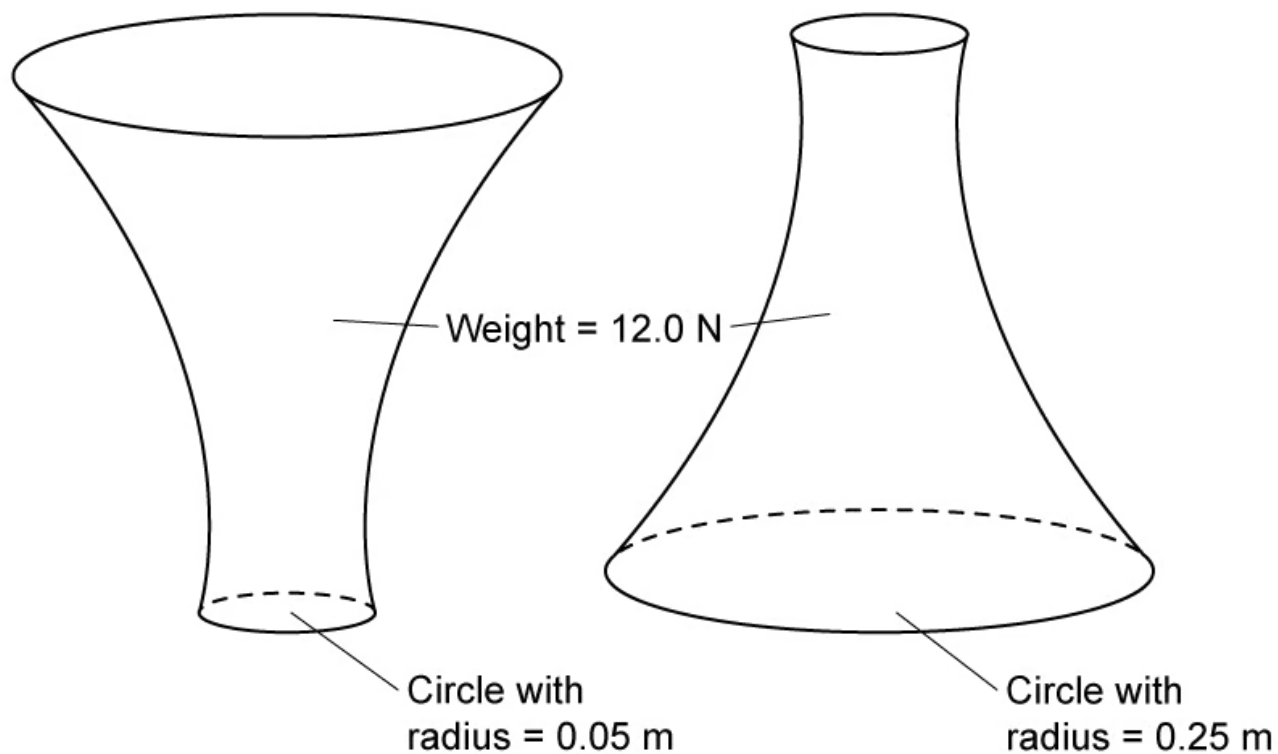


Fig. 1

- A. 1000 Pa
- B. 1250 Pa
- C. 1500 Pa
- D. 2000 Pa

[1 mark]



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