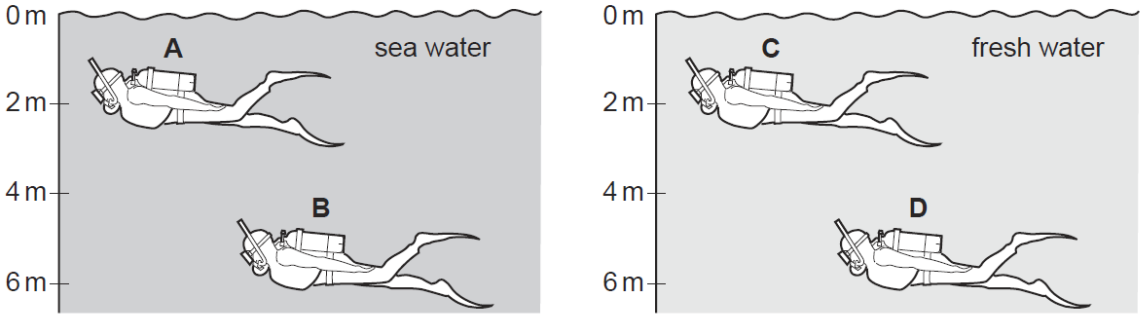
PRESSURE-SET-1

1

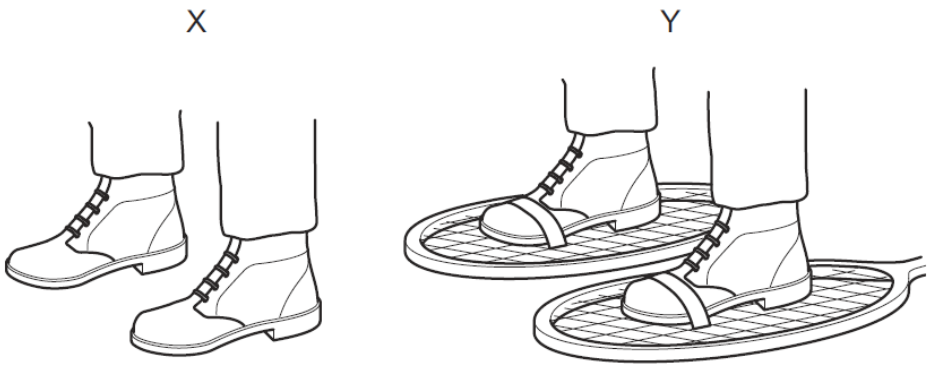
The diagrams show two divers swimming in the sea and two divers swimming in fresh water. Sea water is more dense than fresh water.

On which diver is there the greatest pressure?



2

Two boys X and Y each have the same total weight and are standing on soft ground.

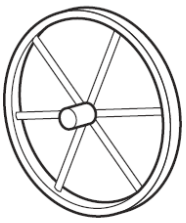


Which boy is more likely to sink into the soft ground and why?

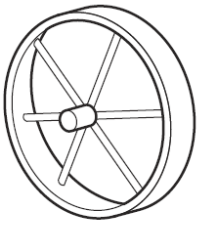
	boy more likely to sink	pressure on soft ground
A	X	larger than Y
B	X	smaller than Y
C	Y	larger than X
D	Y	smaller than X

3

A farmer has two carts. The carts have the same weight, but one has four narrow wheels and the other has four wide wheels.



narrow wheel



wide wheel

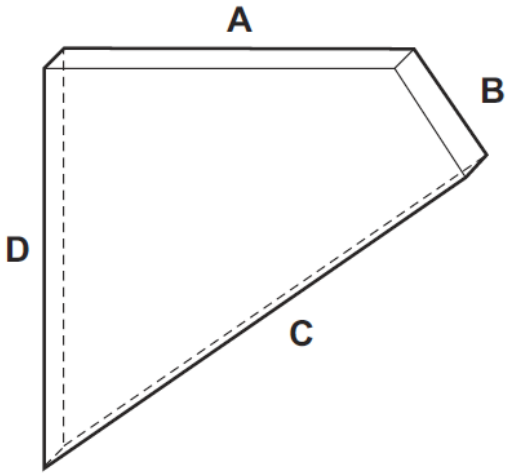
In rainy weather, which cart sinks **less** into soft ground, and why?

	cart wheels	why
A	narrow	greater pressure on the ground
B	narrow	less pressure on the ground
C	wide	greater pressure on the ground
D	wide	less pressure on the ground

4

The diagram shows a thick sheet of glass.

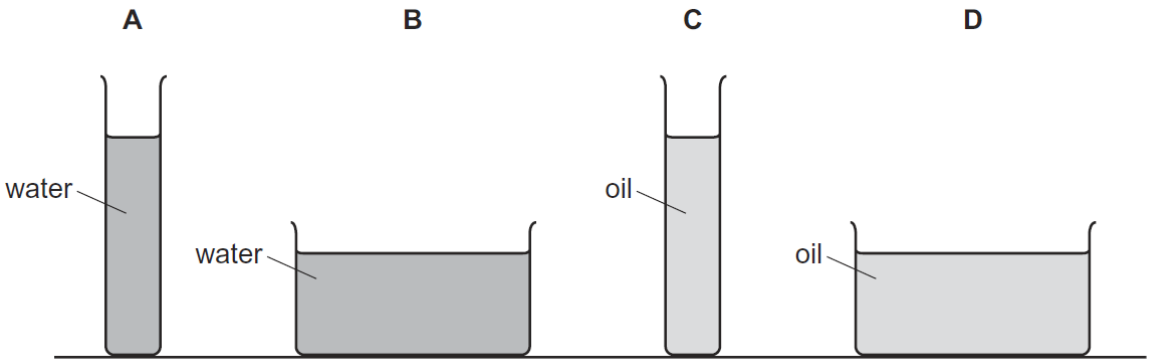
Which edge must it stand on to cause the greatest pressure?



5

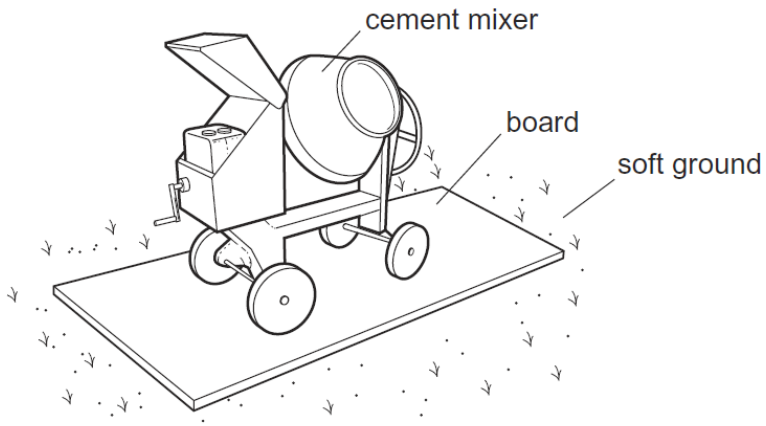
A student fills two containers with water (density 1.0 g / cm^3) and two with oil (density 0.8 g / cm^3), as shown in the diagrams.

In which container is the pressure on the base the greatest?



6

To prevent a cement mixer sinking into soft ground, the mixer is placed on a large flat board.



Why does this prevent the mixer sinking?

A The large area decreases the pressure on the ground.

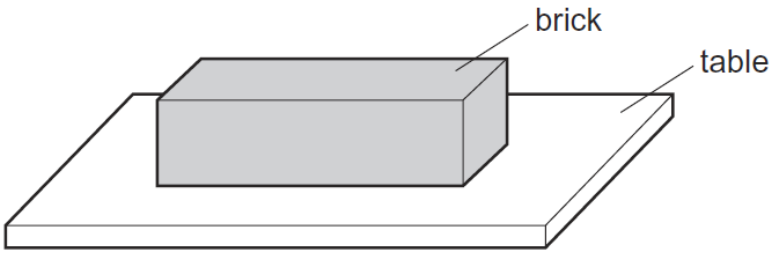
B The large area increases the pressure on the ground.

C The large area decreases the weight on the ground.

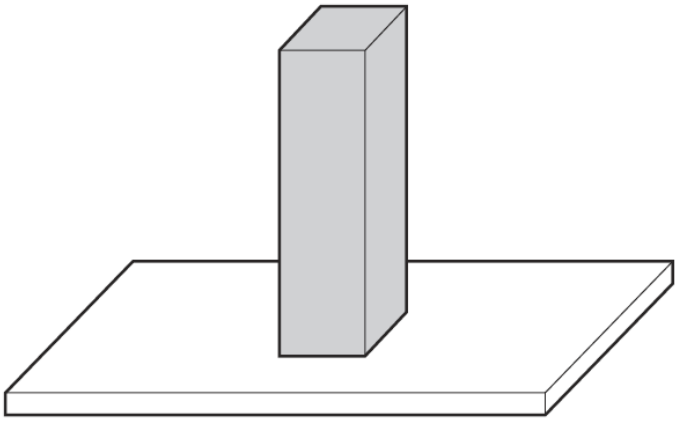
D The large area increases the weight on the ground.

7

A brick with flat, rectangular sides rests on a table.



The brick is now turned so that it rests on the table on its smallest face.



How has this affected the force and the pressure exerted by the brick on the table?

	force	pressure
A	increased	increased
B	increased	unchanged
C	unchanged	increased
D	unchanged	unchanged

8

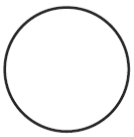
Which statement is explained by reference to pressure?

A Objects with greater mass have greater weight.

B One kilogram of water occupies more volume than one kilogram of lead.

C Spikes on running-shoes sink into the ground.

D Water cooled to a low enough temperature turns to ice.

9	In which position would a boy exert the **most** pressure on the ground? **A** lying on his back **B** sitting down **C** standing on one foot **D** standing on two feet
10	A man stands on the ground. Which action will increase the pressure that the man exerts on the ground? **A** The man slowly bends his knees. **B** The man slowly lies down on the ground. **C** The man slowly raises his arms. **D** The man slowly raises one foot off the ground.
11	The diagrams show the actual size of the heels of four different lady's shoes, as seen from underneath the shoe. Which heel is **most** likely to cause damage to floors? **A**  **B**  **C**  **D**