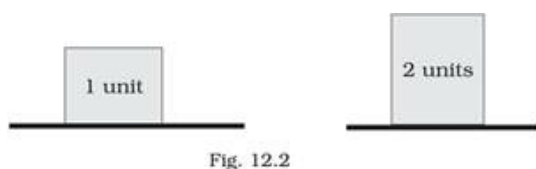


CBSE Class 8 Science
NCERT Exemplar Solutions
CHAPTER – 12
Friction

VERY SHORT ANSWER QUESTIONS

9. Two blocks of iron of different masses are kept on a cemented floor as shown in Fig.12.2. Which one of them would require a larger force to move it from the rest position?



Ans: A larger force will be required to move **the heavier block** (2 units) from the rest position.

Explanation: The force of friction is more when the surfaces in contact are pressed harder against each other. Hence, a larger force will be required to overcome the "static friction" of the heavier block (2 units). A smaller force will be required to move the lighter block (1 unit) from the rest position.

10. Will force of friction come into play when a rain drop rolls down a glass window pane?

Ans: Yes, the force of friction will come into play when a rain drop rolls down a glass window pane.

Explanation: The force of friction comes into play whether the surfaces in contact are solids and/or fluids. The frictional force exerted by fluids is called "drag".

11. Two boys are riding their bicycles on the same concrete road. One has new tyres on his bicycle while the other has tyres that are old and used. Which of them is more likely to skid while moving through a patch of the road which has lubricating oil spilled over

it?

Ans: The bicycle with old and used tyres is more likely to skid on the lubricated patch of road as compared to the bicycle with new tyres.

Explanation: There will be lesser friction between the concrete road and the "old and used tyres" in the case of bicycle with worn out tyres. Hence, this bicycle will have a lesser grip on the concrete road and is more likely to skid. The bicycle with new tyres will have a better grip on the road due to higher friction and is less likely to skid.

12. Fig.12.3 shows two boys applying force on a box. If the magnitude of the force applied by each is equal, will the box experience any force of friction?



Fig. 12.3

Ans: No, the box will not experience any force of friction.

Explanation: If the forces applied from both the directions are equal in magnitude, both the forces will cancel out each other resulting in zero force of friction.

13. Imagine that an object is falling through a long straight glass tube held vertically; air has been removed completely from the tube. The object does not touch the walls of the tube. Will the object experience any force of friction?

Ans: No, the object will not experience any force of friction.

Explanation: When an object is falling through a long straight glass tube held vertically, no frictional force will come into play if the air has been removed completely from the tube and the object falls without touching the walls of the tube. Force of friction comes into play when two surfaces are in contact.