

Seesaw

Luke's dad built a seesaw using a long plank and a saw-horse. Luke's father stood at his end and pushed the seesaw up and down. He tried two different ways of doing this as shown in the diagrams.

Diagram A

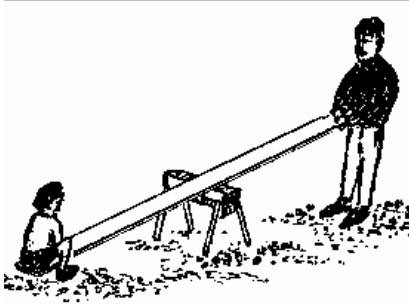
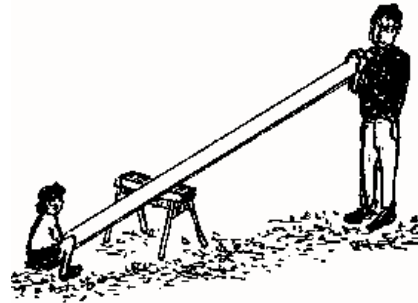


Diagram B



- a) Draw an arrow pointing to the position of the pivot (fulcrum) on Diagram A.
- b) In which diagram does Luke's dad need to use less force to lift the seesaw?

- c) Luke and his father were sitting balanced on the see-saw. Luke's mass was 30 kg and he was sitting 2 metres away from the saw-horse. Luke's father had a mass of 60 kg. How far away from the saw-horse was his father sitting? [NOTE: $\text{mass 1} \times \text{distance 1} = \text{mass 2} \times \text{distance 2}$]
