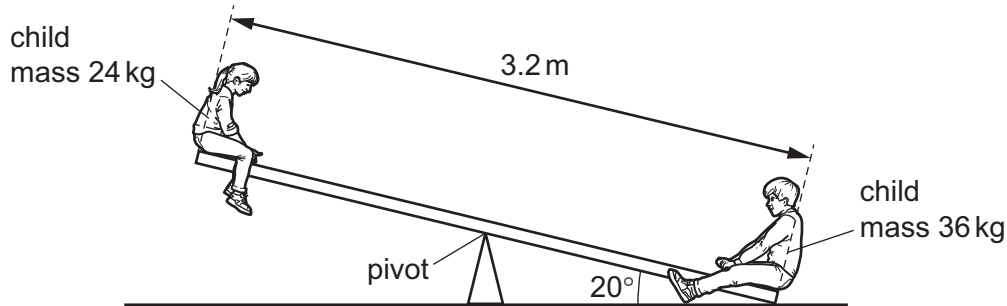


- 11** A uniform rigid beam of length 3.2 m is pivoted at its centre. Two children sit at the opposite ends of the beam, as shown.



One child has a mass of 24 kg. The other child has a mass of 36 kg. The heavier child causes one end of the beam to permanently rest on the ground, so that the beam makes an angle of  $20^\circ$  to the horizontal ground.

What is the moment of the weight of the 24 kg child about the pivot?

- A** 72 N m      **B** 130 N m      **C** 350 N m      **D** 380 N m