

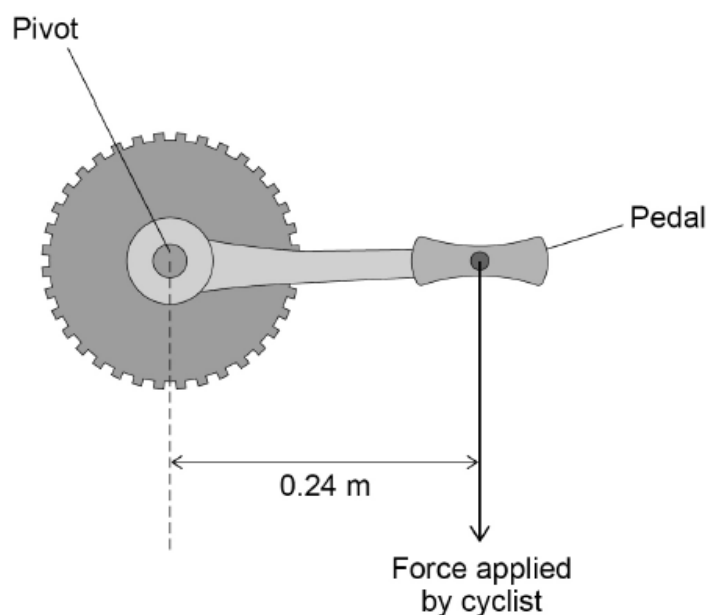
Moments, lever and gears – GCSE Physics Paper 2

1. No.2(2.4_2.5)

0 2 . 4

The cyclist applies a force of 150 N to one of the bicycle pedals.

Figure 4 shows the distance between the force applied and the pivot.

Figure 4

Calculate the moment about the pivot caused by the force applied to the pedal in **Figure 4**.

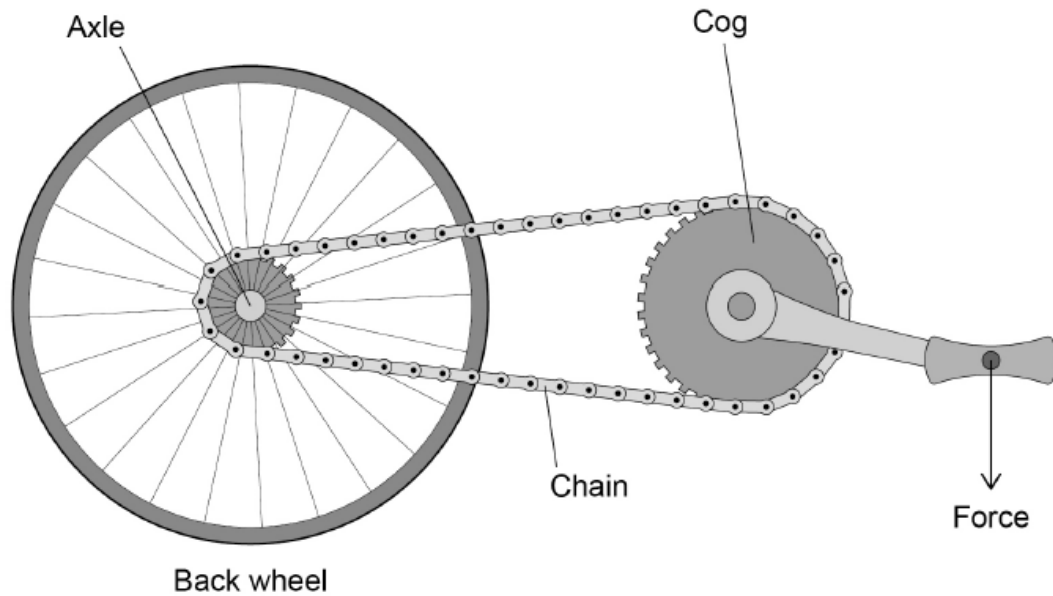
Use the equation:

$$\text{moment of a force} = \text{force} \times \text{distance}$$

[2 marks]

Moment = _____ N m

0 2 . 5

Figure 5 shows how the pedal is connected to the back wheel of the bicycle.**Figure 5**

Complete the sentence.

Choose the answer from the box.

[1 mark]

axle

chain

cog

The force from the cyclist pushing down on the pedal is transmitted to the back wheel
by the _____.