

# Practice paper (calculator)

## Higher tier

Time: 1 hour 30 minutes

The total mark for this paper is 80.

The marks for **each** question are shown in brackets.

- 1 A stack of 500 sheets of paper is 4.5 cm high.  
Find the thickness of a single sheet of this paper in
- a centimetres

..... cm  
[1 mark]

- b metres, giving your answer in standard form.

..... m  
[1 mark]

[Total: 2 marks]

- 2 Lois is rearranging the formula  $T = 2\pi\sqrt{\frac{l}{g}}$  to make  $l$  the subject.  
Here is her working.

$$T = 2\pi\sqrt{\frac{l}{g}}$$

$$T^2 = 2\pi\frac{l}{g}$$

$$gT^2 = 2\pi l$$

$$l = \frac{gT^2}{2\pi}$$

- a Lois's answer is wrong. Explain why.

.....  
.....

[1 mark]

- b Work out the correct answer.

.....  
[2 marks]

[Total: 3 marks]