Q1.

The time it takes for the pendulum of a clock to swing from one end of its arc to the other and back again is given by the formula

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



(a) Find the value of I, when

$$T = 2$$
, $\pi = 3.14$ and $g = 9.81$

.....(2)

(b) Make I the subject of the formula.

(3)		
(Total 5 marks)		

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M1.

Working Answer Mark Additional Guidance

(a) 0.995 2 M1 for dividing 2 by 2 × 3.14 and squaring A1 for 0.994(96937) cao	Edexcel Math	s GCSE - Substitution (H))		PnysicsAndMaths I ut	or.c
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(b) $T^2 = 4\pi^2 \frac{l}{g}$	$l = \frac{T^2 g}{4\pi^2}$	M1 for squaring both sides M1 for dividing by $4π^2$ or multiplying by g
$\frac{T^2}{4\pi^2} = \frac{l}{g}$		

Total for Question: 5 marks

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