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 *l*, when

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

....

(2)

(b) Make *l* the subject of the formula.

....

(3)
(Total 5 marks)

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 |

| (b) | $T^2 = 4\pi^2 \dfrac{l}{g}$ $\dfrac{T^2}{4\pi^2} = \dfrac{l}{g}$ | $l = \dfrac{T^2 g}{4\pi^2}$ | 3 | **M1** for squaring both sides **M1** for dividing by 4π² or multiplying by *g* |

Total for Question: 5 marks

Resource currently unavailable.