

1. The relationship between two variables p and t is modelled by the regression line with equation

$$p = 22 - 1.1 t$$

The model is based on observations of the independent variable, t , between 1 and 10

- (a) Describe the correlation between p and t implied by this model.

(1)

Given that p is measured in centimetres and t is measured in days,

- (b) state the units of the gradient of the regression line.

(1)

Using the model,

- (c) calculate the change in p over a 3-day period.

(2)

Tisam uses this model to estimate the value of p when $t = 19$

- (d) Comment, giving a reason, on the reliability of this estimate.

(1)