

Answer **all** the questions in the spaces provided.

- 1 (a) (i) Distinguish between vector quantities and scalar quantities.

.....
.....
.....

[2]

- (ii) State whether each of the following is a vector quantity or a scalar quantity.

1. temperature

.....

[1]

2. acceleration of free fall

.....

[1]

3. electrical resistance

.....

[1]

- (b) A block of wood of weight 25 N is held stationary on a slope by means of a string, as shown in Fig. 1.1.

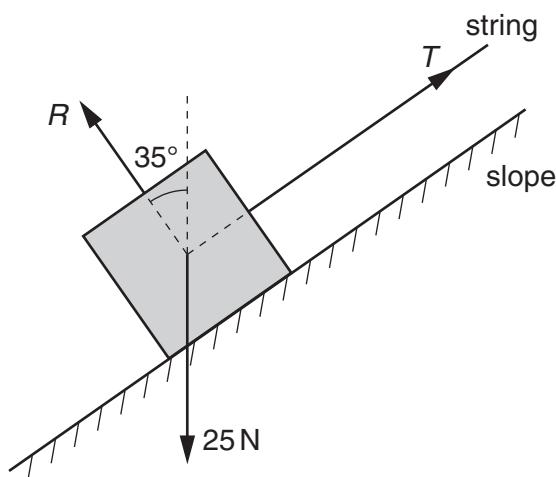


Fig. 1.1

The tension in the string is T and the slope pushes on the block with a force R that is normal to the slope.

Either by scale drawing on Fig. 1.1 or by calculation, determine the tension T in the string.

$$T = \dots \text{ N} [3]$$