

## Year 11 Physics 2021 Worksheet 2- Mechanics

Write the answers in your Exercise Book.

1. State the number of **significant figures** in each measurement given below.

a) 8726

b) 0.00073

c) 10.0120

d) 10

(2 marks)

2. A table of data is given below.

Mass (kg)	0	1	2	3	4
Extension (cm)	0	2	4	6	8

a) Plot a fully labelled graph of **extension against mass**.

(2 marks)

b) Identify the type of **relationship** represented by the graph.

(1 mark)

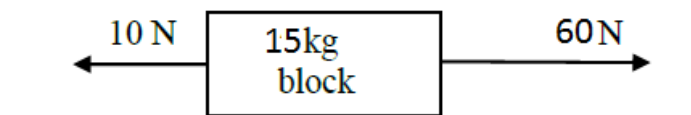
c) How much mass will cause an extension of 5 cm?

(1 mark)

3. Distinguish between **mass and weight**.

(2 marks)

4. The diagram given below shows a block of mass 15 kg acted upon by a force of 60 N. A frictional force of 10 N also acts on the block.



a) State the **direction** in which the block will move.

(1 mark)

b) Calculate the **net force** acting on the block.

(1 mark)

c) Calculate the magnitude of the block's **acceleration**.

(1 mark)