Worksheet 7
Year 12 Physics

Write the answers in your Exercise Book.

1. For each of the following numbers, write the number of **significant figures**.
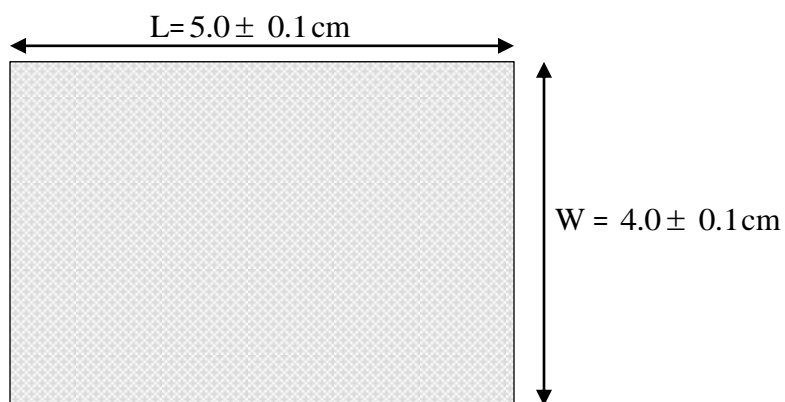
   (a) 1.50   **(1 mark)**

   (b) 0.0230   **(1 mark)**

   (c) 1.003   **(1 mark)**

   (d) 1.2×10^5 **(1 mark)**

2. A student measured the length and width of a rectangle as shown below.

$$L = 5.0 \pm 0.1 \, \text{cm}$$

$$W = 4.0 \pm 0.1 \, \text{cm}$$

   (a) Find $L + W$ **(1 mark)**

   (b) Find the **perimeter** of the rectangle.   **(2 marks)**

   (c) What is the **percentage** error in the measurement 5.0 ± 0.1 cm?   **(1 mark)**

   (d) What is the **percentage** error in the measurement 4.0 ± 0.1 cm?   **(1 mark)**

   (d) Calculate the **area** of the square with its absolute uncertainty.   **(2 marks)**