### Approximations and errors

**ARITHMETIC**

02

**Am I taking the medication correctly?**

A patient is prescribed 5 mg daily of a particular drug, distributed in 10 mg pills.

To consume the proper dosage, the patient decides to split each pill in half. Below are the masses of the different doses that have eaten during treatment, which lasts for 10 days. The mass of the halves has been determined on an analytical balance of 0.01 mg accuracy

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **4.55** | **5.84** | **4.06** | **5.63** | **5.49** |
| **4.08** | **3.99** | **5.71** | **6.01** | **4.25** |

Find the average value of the daily dose of medication that the patient consumes during the 10 days that the treatment lasts, with three significant figures.

**1**

Between what values id the average daily dose?

**2**

What is the maximum absolute error that has been committed by dividing the tablets in two?

**3**

What is the relative error that corresponds to the greatest absolute error committed?

**4**

Is the patient following the treatment properly?

**5**

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