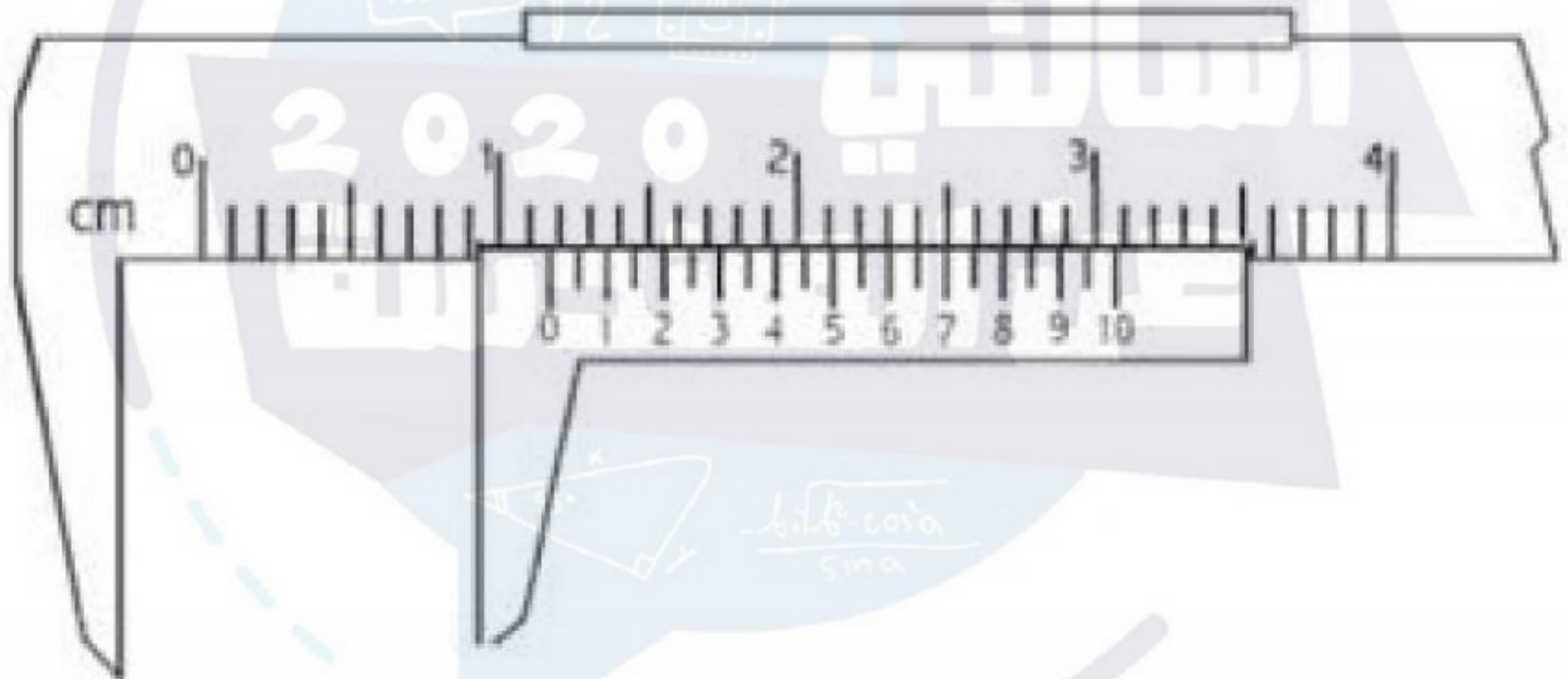


1- The Varner calliper in this figure reads: *



○ 0.965 cm

$$1.1 \text{ cm} + 0.6 \text{ mm}$$

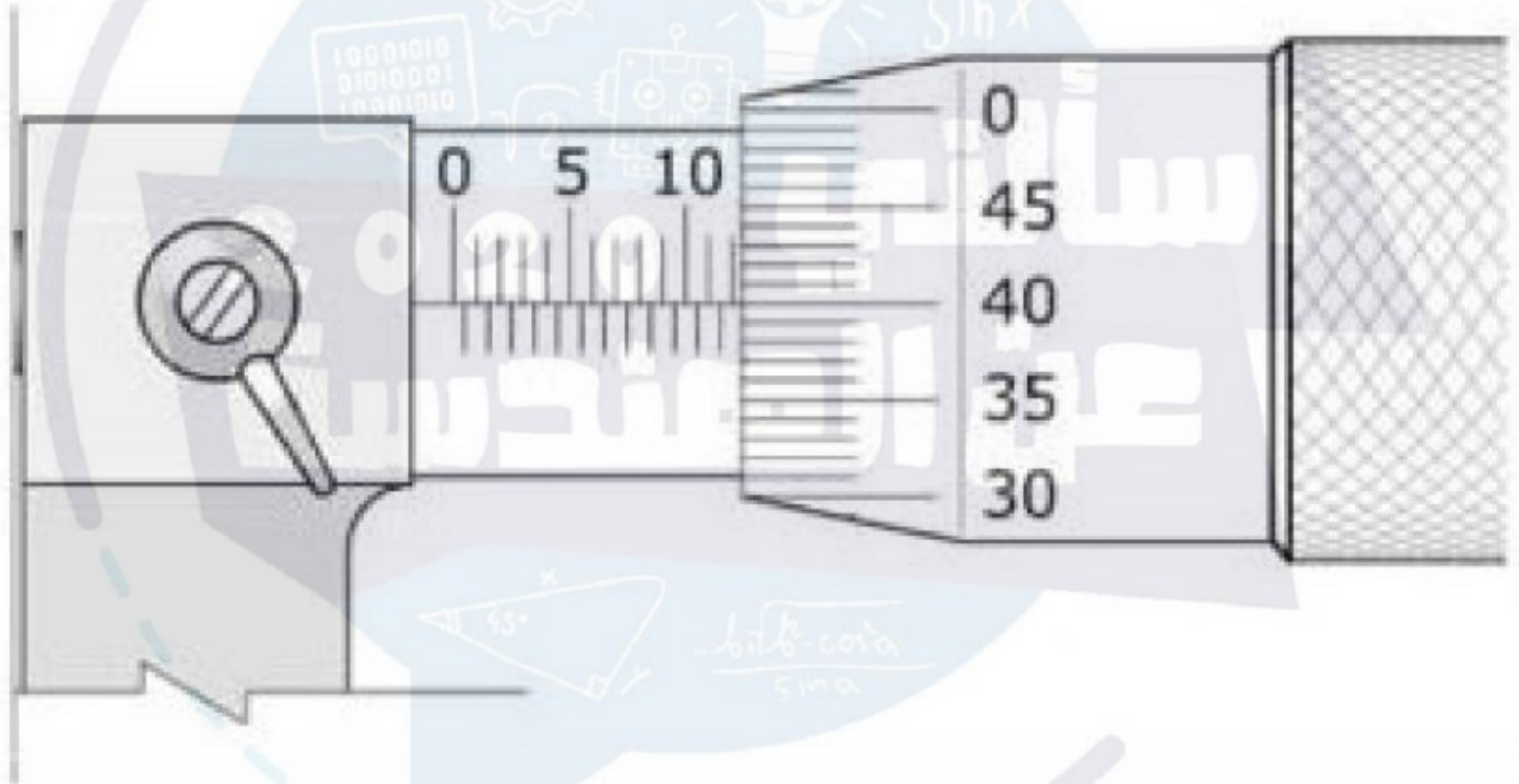
$$1.1 \text{ cm} + 0.06 \text{ cm}$$

$$= 1.16 \text{ cm}$$

2021

عن الجامعة

3- This micrometer reads: *



10.40 mm

12 mm + 0.40 mm

2021

= 12.40 mm



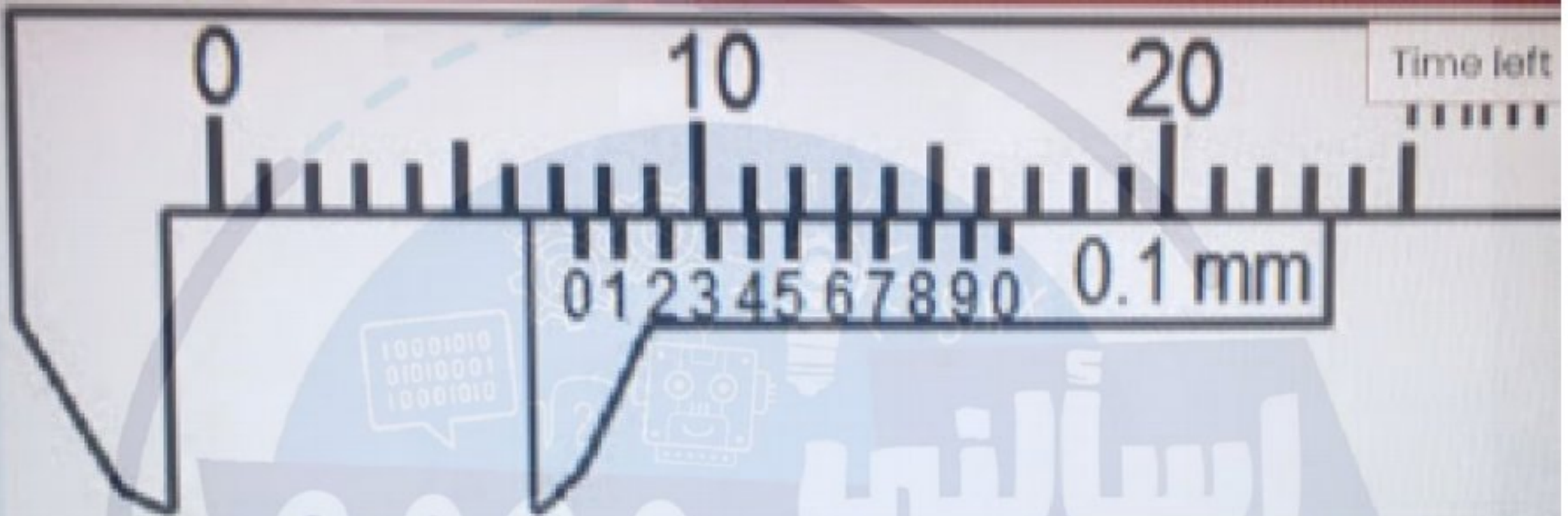
- a. 6.68 mm
- b. 6.518 mm
- c. 0.0668 mm
- d. 0.06518 mm
- e. 0.00668 mm

$$6.5 \text{ mm} + 0.18 \text{ mm}$$

$$6.68 \text{ mm}$$

2021

أسألني
عن الهندسة



The reading (in mm) of the adjacent Vernier caliper is:

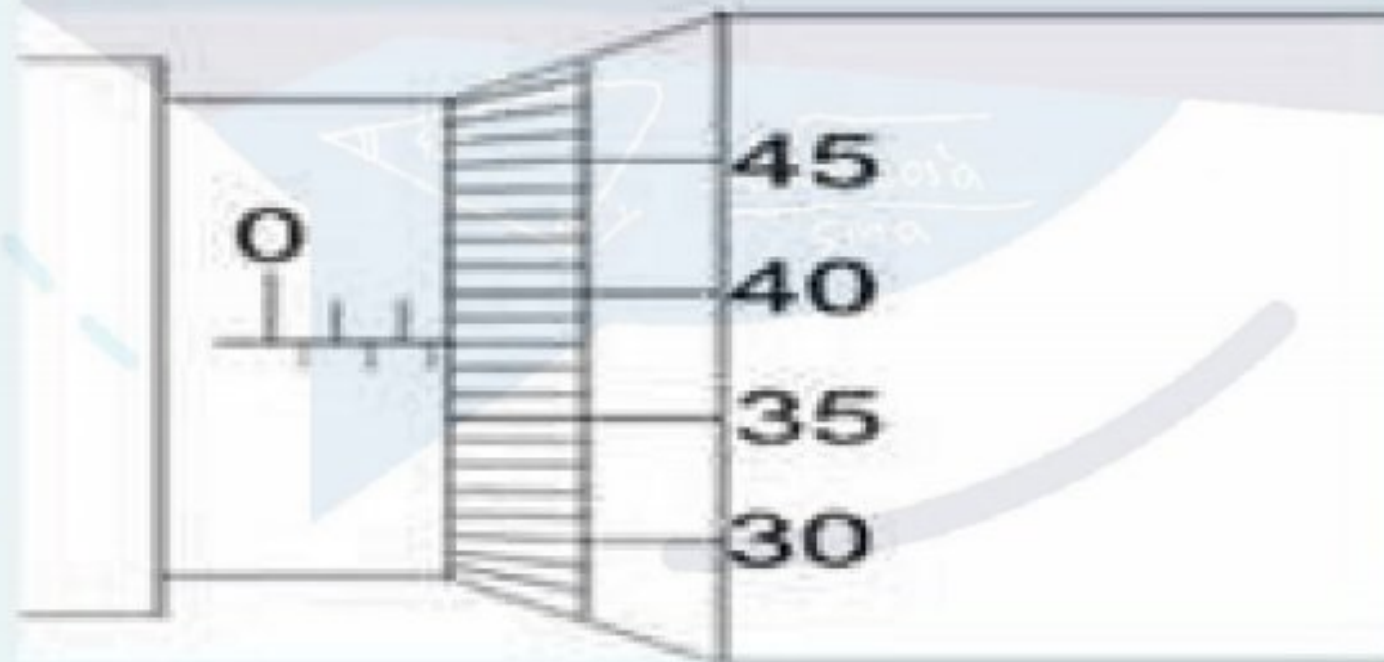
- a. 7.6 ± 0.1
- b. 6.6 ± 0.1
- c. 6.60 ± 0.05
- d. 7.60 ± 0.05
- e. None of the above

$$7 \text{ mm} + 0.6 \text{ mm}$$

$$= 7.6 \text{ mm} \pm \left[\frac{0.1}{2} \right]$$

$$= 7.60 \text{ mm} \pm 0.05$$

The adjacent figure shows the scales of a micrometer. If the vertical scale has 50 divisions and the smallest division on the horizontal scale is 0.5 mm. The uncertainty (in mm) of any reading when using the adjacent micrometer is:



$$\frac{0.5}{50} = 0.01 \text{ mm} \rightarrow \frac{0.01}{2} = 0.005 \text{ mm}$$

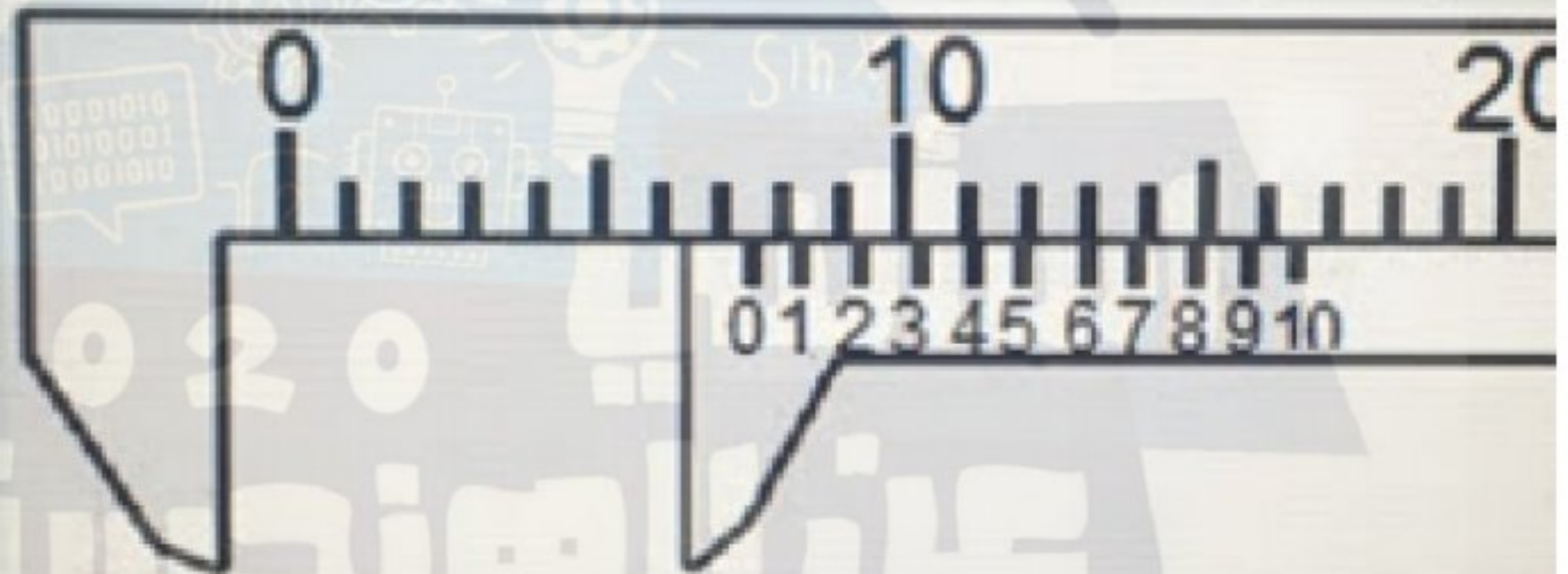
Question 6

Not yet answered

Marked out of 2.50

Flag question

The uncertainty (in mm) of any reading when using the adjacent



- a. 0.005 mm
- b. 0.05 mm
- c. 1 mm
- d. 0.5 mm
- e. 10 mm

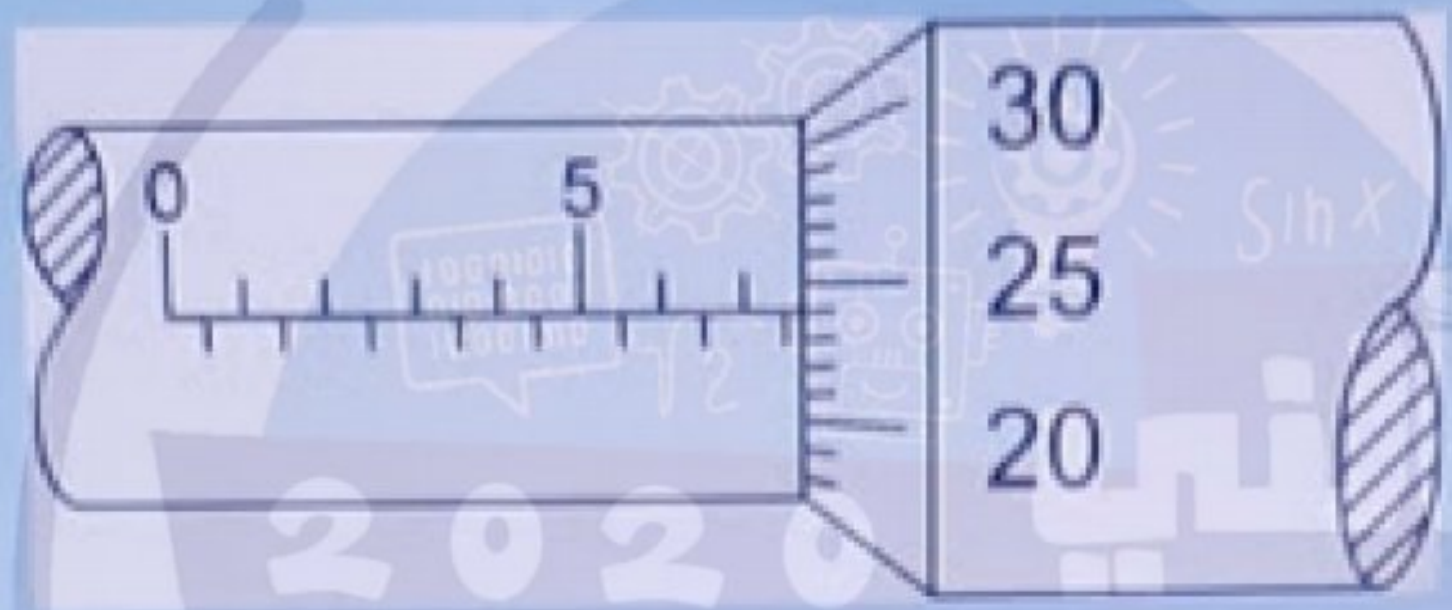
Clear my choice

$$\frac{1}{10} = 0.1 \text{ m}$$

$$\frac{1}{20} = 0.05 \text{ mm}$$

2021
عن الهندسة

micrometer would be reported precisely (in mm) as:



2020

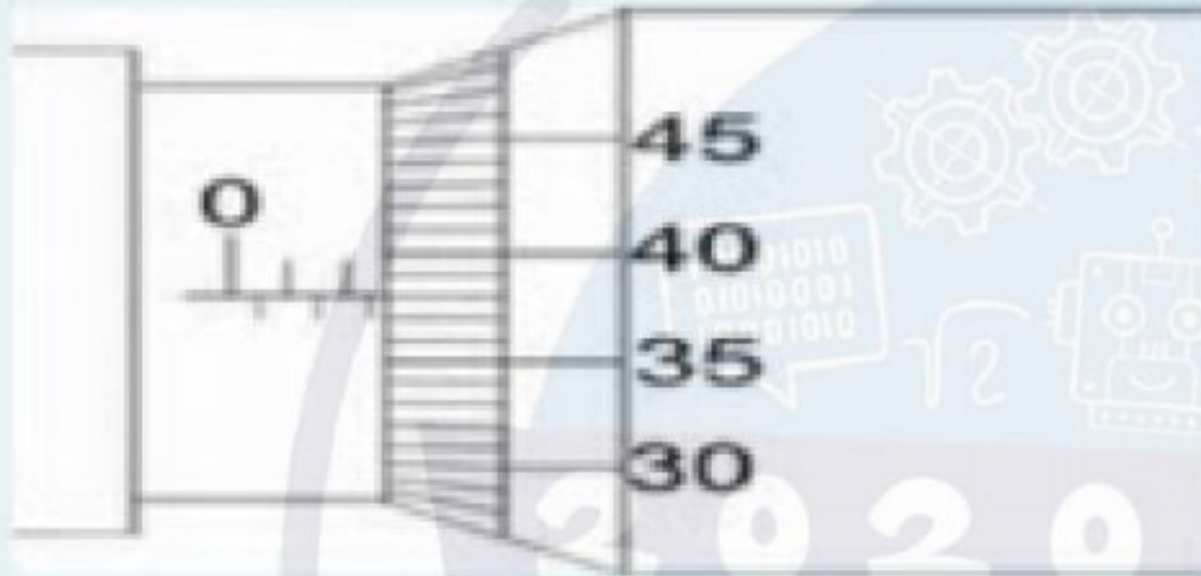
عن الهندسة

$$7.5 \text{ mm} + 0.24 \text{ mm}$$

$$= 7.74 + 0.005 \text{ mm}$$

اسألني
2021
عن الهندسة

The adjacent figure shows the scales of a micrometer. If the vertical scale has 50 divisions and the smallest mm. The uncertainty (in mm) of any reading when using the adjacent micrometer is:



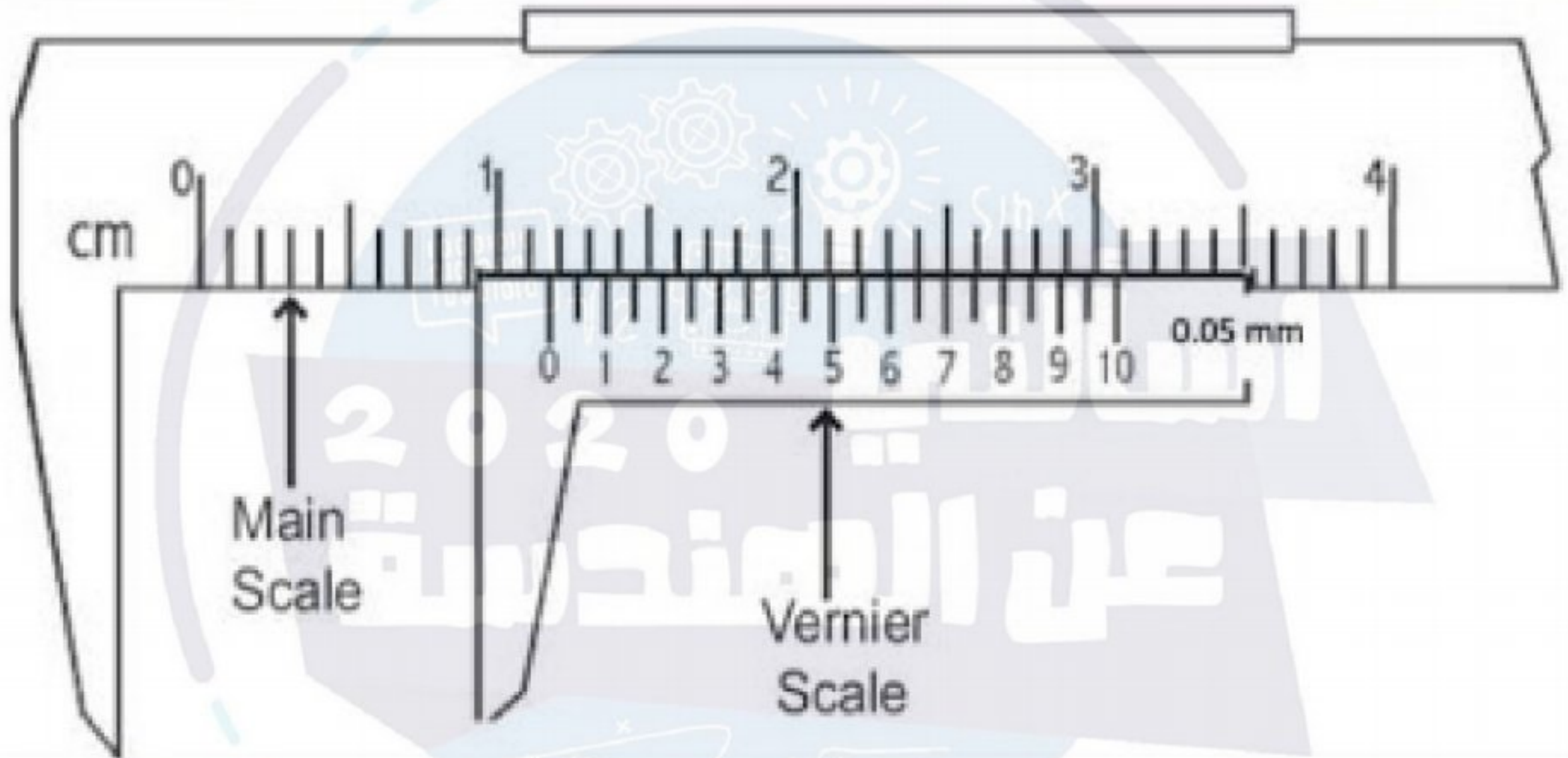
- a. 2.880 ± 0.005
- b. 2.38 ± 0.01
- c. 2.380 ± 0.005
- d. 2.88 ± 0.01
- e. 5.38 ± 0.01

Clear my choice

2.5 mm + 0.38 mm

2.88 mm + 0.005 mm

The vernier caliper shown in the graph is used to measure the diameter of a sphere, the diameter and the uncertainty (ΔD) are:



- a. 1.65 ± 0.005 mm
- b. 11.055 ± 0.05 mm
- c. 11.65 ± 0.025 mm
- d. 1.05 ± 0.025 mm
- e. None of the above

Clear my choice

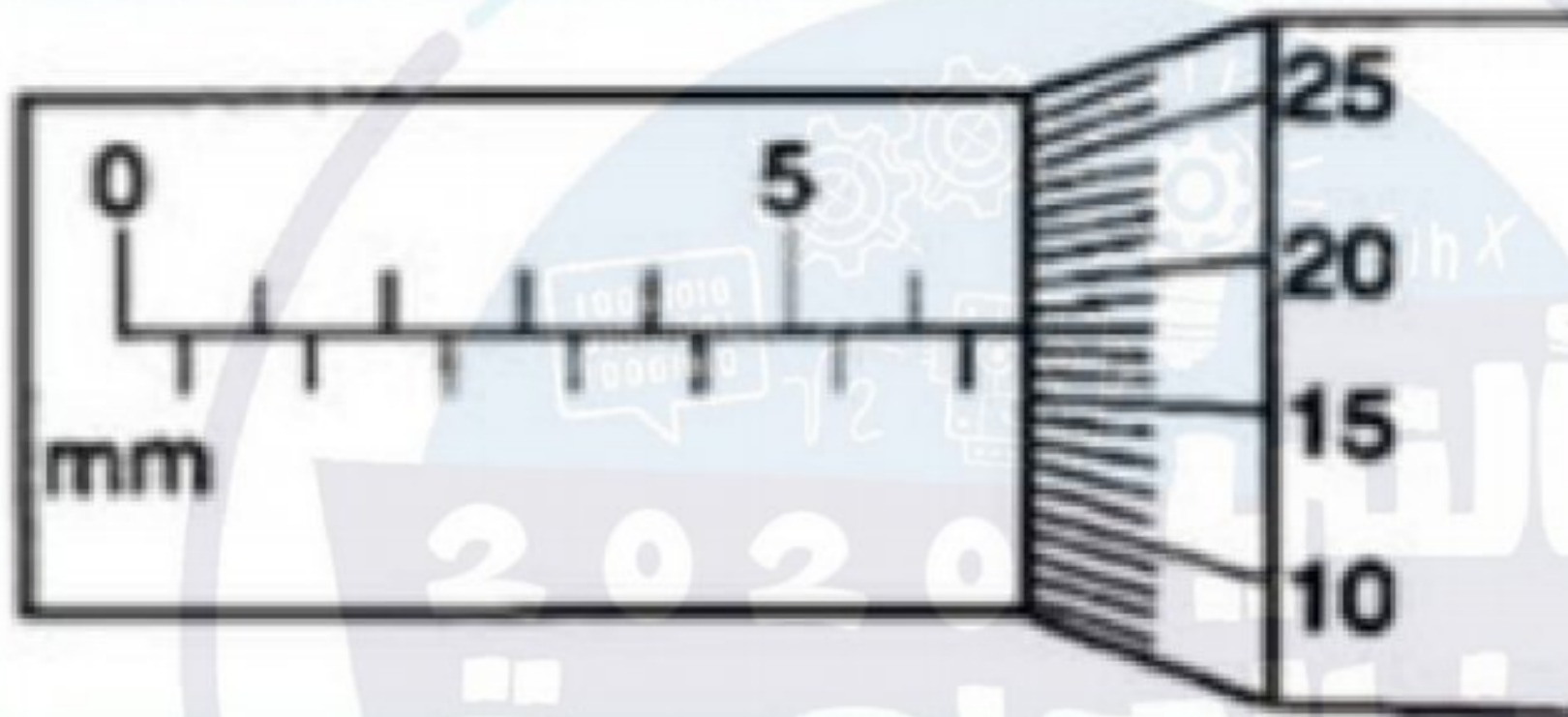
11 mm +

0.65 mm

= 11.65 mm

0.025 mm

A student was asked to measure the thickness of a sheet of papers. The reading on the micrometer is shown in the diagram. The thickness of one paper (in mm) is:



- a. 0.0558 mm
- b. 0.00558 mm
- c. 5.58 mm
- d. 6.518 mm
- e. 0.05518 mm

Clear my choice

$$6.5 \text{ mm} + 0.18 \text{ mm}$$

$$= 6.68 \text{ mm}$$