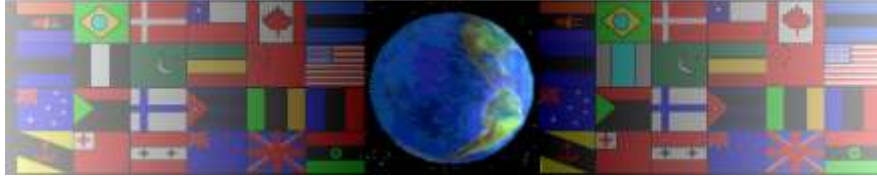


# THE VERNIER CALIPER

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On behalf of The World Association of Technology Teachers

## W.A.T.T.



World Association of Technology Teachers

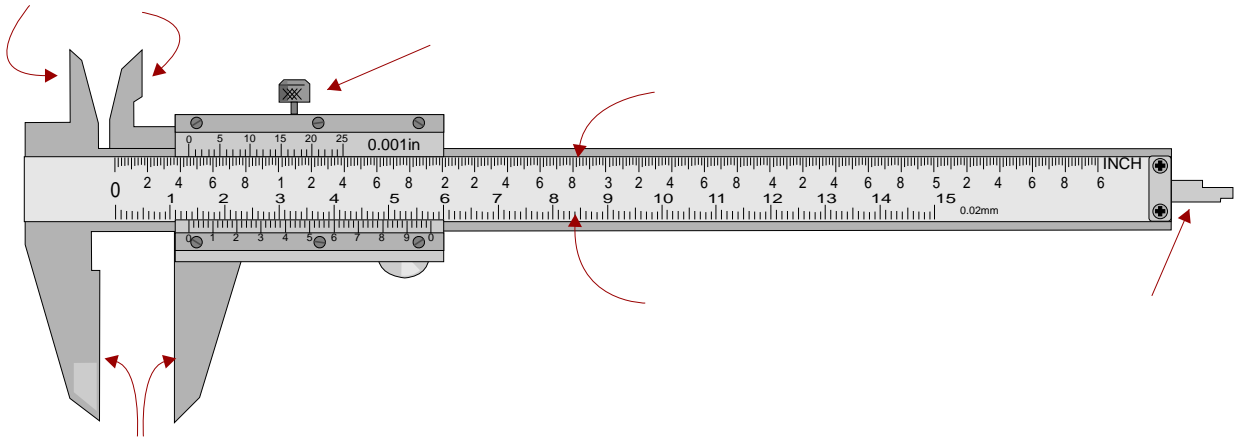
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# THE VERNIER CALIPER

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1. Complete the diagram of the vernier caliper by adding the names / labels of the various parts.



2. What are the advantages of a manual vernier caliper compared to the digital type?

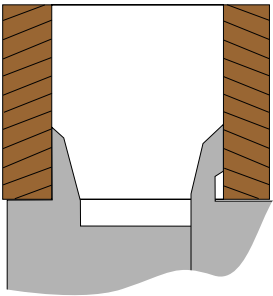
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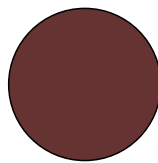
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3. Sketch the position of the jaws / depth stop to show how accurate measurements can be made with the vernier caliper. Example one shows how the jaws are positioned for measuring the internal diameter of a tube. Complete diagrams A and B.

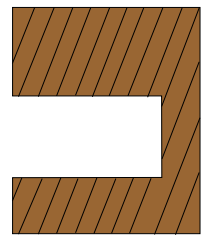
EXAMPLE ONE



A. EXTERNAL MEASUREMENT



B. DEPTH MEASUREMENT



4. A locking screw is present on both the digital and manual versions of a vernier caliper. What could happen if the locking screw is not tightened, after a measurement has been taken?

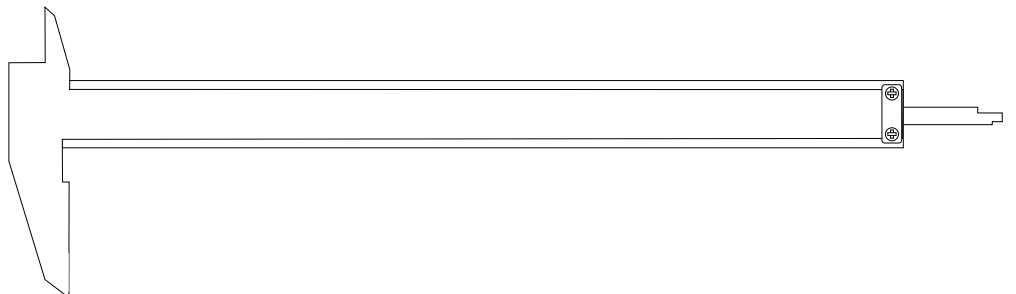
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5. Complete the diagram of the digital vernier caliper shown opposite.

Add appropriate colour and shade.

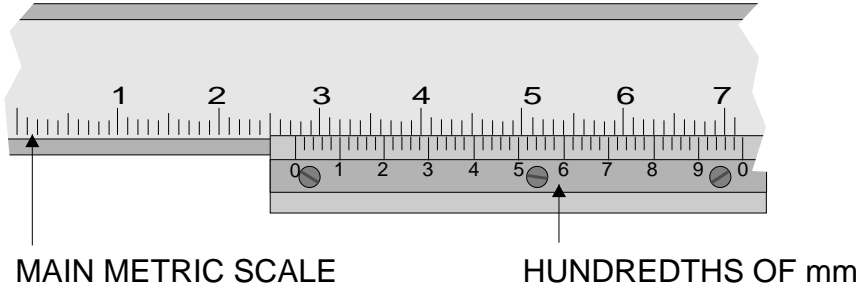


# THE VERNIER CALIPERS

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6. The questions below show the scale of a manual vernier caliper after measurements have been taken. Write the answers for each reading and include the working out / calculations.

## QUESTION 1:



ANSWER: \_\_\_\_\_

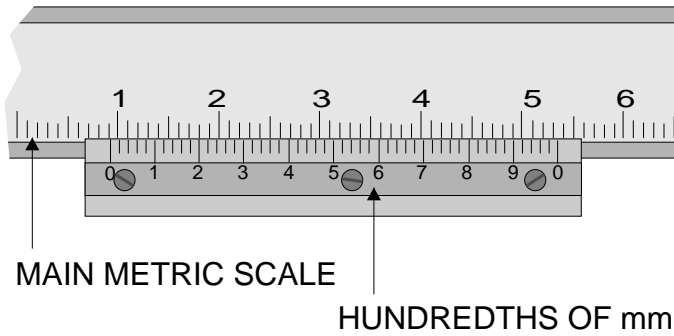
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## QUESTION 2:



ANSWER: \_\_\_\_\_

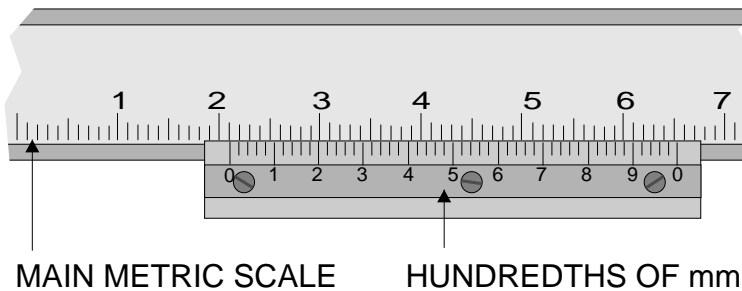
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## QUESTION 3:



ANSWER: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

7. Engineers find both the digital and manual versions of the vernier caliper very useful. Why do you think this is the case? You may wish to explain why it is necessary to measure extremely accurately when engineering.

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