Measurement Activity

1) Measure the length and width of 4 tile squares on the lab floor **to the nearest 0.001 m**

2) Calculate the area of each square. Make sure to round the answer to the correct number of sig figs.

3) Add your four results to determine the total area of the big square made up by your 4 squares.

|  |  |  |  |
| --- | --- | --- | --- |
| Square | **Length (m)** | **Width (m)** | **Area (m2)** |
| **1** |  |  |  |
| **2** |  |  |  |
| **3** |  |  |  |
| **4** |  |  |  |
|  |  | Total Area |  |

4) Measure the length and width of the big square formed by the 4 squares you selected.

|  |  |  |
| --- | --- | --- |
| **Length (m)** | **Width (m)** | **Area (m2)** |
|  |  |  |

Questions:

1) How do the area values for the big square compare between question #3 and #4?

2) Why do you think a difference occurs?

3) Describe how the number of sig figs in a measurement relates to its precision.