

**Scenario (30 minutes):** In the recently concluded 2020 36<sup>th</sup> Zurich marathon in Seville, Spain, Uganda’s Juliet Chekwel won and set a new national record that qualified her for Tokyo Olympics. It took Juliet only 2:23:13 to cover the 42.1km set by the marathon officials. When she returned home, she narrated her ordeal in Zurich to two of her siblings Bena and Julio. Bena who is an S.2 student of Kyanja High school asked Julio who had just joined S.1 in Dona S.S to help her identify the instrument which was used to measure the distance that their sister had completed and also to help her express the same distance Juliet ran in metres, centimetres, millimetres, decimetres, decametres and hectometres which are all units used in measurement of distance. Julio in a jokey mood told Bena that he had missed the lessons when such content was taught in class, this annoyed Juliet who vowed never to pay Julio’s school fees unless he answered the questions asked by Bena. In your groups, you are required to help Julio answer the questions so that he can keep in school.



**Class activity (30 minutes):**

- (a) In your groups, using three trials, measure and record the length and width of a table, the length of the chalk board and the height of the chairperson of your group. Find the average for each measured values.

- (i) Length of the table

Value one, ( $l_1$ )	Value two, ( $l_2$ )	Value three, ( $l_3$ )	Average value ( $l$ )

- (ii) Width of the table

Value one, ( $w_1$ )	Value two, ( $w_2$ )	Value three, ( $w_3$ )	Average value ( $w$ )

- (iii) Length of the chalk board

Value one, ( $l_1$ )	Value two, ( $l_2$ )	Value three, ( $l_3$ )	Average value ( $l$ )

- (iv) Height of the chairperson

Value one, ( $h_1$ )	Value two, ( $h_2$ )	Value three, ( $h_3$ )	Average value ( $h$ )

- (b) Why do you think the teacher encouraged you to use three trials and then find the average value for each measurement?

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**Individual work (10 minutes)**

(a) Individually, convert the following measurements into units indicated in brackets.

(i) 4.25m (cm)

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(ii) 0.256km(m)

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(iii) 367.5dm(Dm)

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**Research work (submit in results on Tuesday, 10/03/2020 before 4pm):** An instrument called a “**Jones counter**” mounted on a racing bicycle is used to measure marathons and long distance running events. It was adopted by IAAF (international Association of Athletics Federations) as the only approved method for measuring road races. In your groups, using your ICT skills, explain how a Jones counter is used to measure long distance running events.  
**Resources you need:** “Computers with internet connection”.

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