

1. Do you remember the formula to calculate the average speed? Write it down.
2. Calculate the average speed of the L1 (the red one):
  - Open Google Maps and select **Fondo** as the starting point and **Sagrera** as the arrival point.
  - Write down the time that the metro takes to do this route.
  - Write also down the distance that there is between these two stops walking (if Google Maps gives you different routes, take as the correct value the arithmetic mean of the given values).
  - Give the results in km/h and m/s. To change from one unit to another, use the conversion factor, watch the [video](#) to learn how to do it.
3. Do the same with three different Metro lines (always select a route that has 7 stops).
4. Compare the  $V_m$  of the 4 studied lines and complete the table:

| <i>Line and stops / Member of the group leading the mean speed calculation</i> | <i><math>V_m</math> (km/h)</i> | <i><math>V_m</math> (m/s)</i> |
|--------------------------------------------------------------------------------|--------------------------------|-------------------------------|
| Line: 1 (red)<br>Stops:<br>Member:                                             | Time:<br>Distance:<br>$V_m$ :  | Time:<br>Distance:<br>$V_m$ : |
| Line:<br>Stops:<br>Member:                                                     | Time:<br>Distance:<br>$V_m$ :  | Time:<br>Distance:<br>$V_m$ : |
| Line:<br>Stops:<br>Member:                                                     | Time:<br>Distance:<br>$V_m$ :  | Time:<br>Distance:<br>$V_m$ : |
| Line:<br>Stops:<br>Member:                                                     | Time:<br>Distance:<br>$V_m$ :  | Time:<br>Distance:<br>$V_m$ : |



[A / Home](#)

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Now, with your group, write a text (in catalan) comparing and justifying which line is faster.