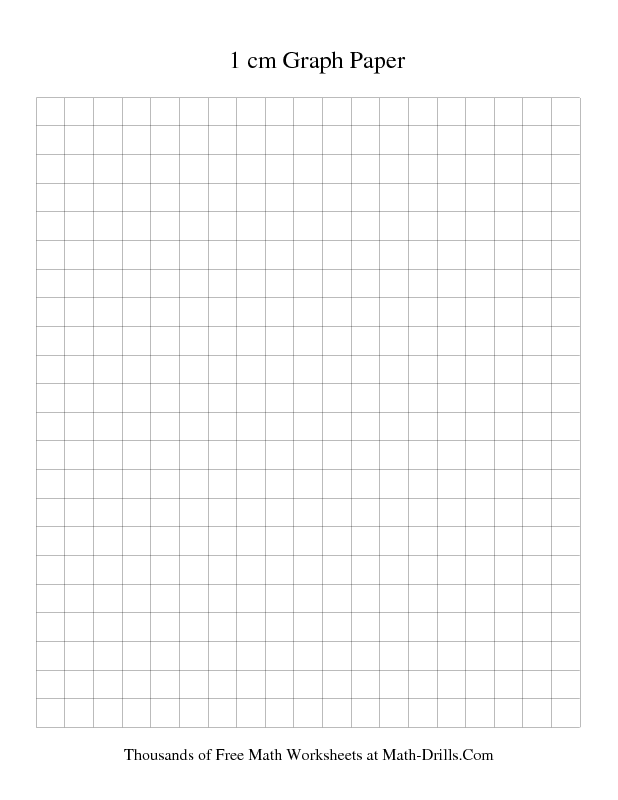
Part 1:

|  |  |  |  |
| --- | --- | --- | --- |
| Position of photogate A from top of ramp (cm) | Time from Photogate A  (sec) | Distanced traveled by car= wing width  5cm | Speed of the car  (cm/sec) |
| 10cm |  | 5cm |  |
| 20cm |  | 5cm |  |
| 30cm |  | 5cm |  |
| 40cm |  | 5cm |  |
| 50cm |  | 5cm |  |
| 60cm |  | 5cm |  |
| 70cm |  | 5cm |  |
| 80cm |  | 5cm |  |

Part 2:

Using your data from above, make a graph of speed vs. distance. Be sure to label the axes and provide a title for the graph. Graph speed on the vertical axis and position of the photogate on the horizontal axis.

2a. How does the speed of the car change as it moves down the ramp?

2b. What does the graph show about the speed of the car?

Part 3:

3b. Record the predicted speed

3d. Record the time \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Calculate the actual speed

3e. How does the predicted speed compare with the actual measured speed?

What does this tell you about your experiment and measurements?

Part 4: Show your work for each of the calculations described in part 4.

A.

B.

C.