

PRESENTING SCIENTIFIC INFORMATION

Significant Figures – Exercises

A. State the number of significant figures in each of the following.

- | | |
|---------------------------------|----------------|
| 1. 1000 | 1 s.f. |
| 2. 0.00035 | 2 s.f. |
| 3. 0.000350 | 3 s.f. |
| 4. 1006 | 4 s.f. |
| 5. 560 | 2 s.f. |
| 6. 560.0 | 4 s.f. |
| 7. 25.3×4 | 1 s.f. |
| 8. 25.3×4.0 | 2 s.f. |
| 9. $25.3 \times 1.654 / 0.0004$ | 1 s.f. |
| 10. $23.7 + 654.189$ | 4 s.f. (677.9) |

B. Round the following to the required number of significant figures.

- | | |
|------------|--------------------------|
| 1. 742,400 | 4 s.f. |
| 2. 742,000 | 3 s.f. |
| 3. 740,000 | 2 s.f. |
| 4. 0.07988 | 4 s.f. |
| 5. 0.0799 | 3 s.f. |
| 6. 0.080 | 2 s.f. |
| 7. 20.01 | 4 s.f. |
| 8. 20.0 | 3 s.f. |
| 9. 20 | 2 s.f. (also for 1 s.f.) |
| 10. 10 | 1 s.f. |

Graphing – Exercises

On the blank graph sheet below, label the variables on the correct axis and mark (with a value) the main divisions (major gridlines). Plot the data points and draw the line of best fit (trendline), taking note of the significance of (0, 0).

Time in spray booth (seconds)	Paint thickness (microns)
20	10
45	17
65	28
80	42
120	78
195	135

