More Graphing Error Analysis Practice

The speed of a car was monitors as it accelerated as fast as it could on a race track. Graphically determine the acceleration of the car with a complete graphical error analysis.

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| --- | --- |
| Time (s)  +/- 0.1 s | Speed (m/s)  +/- 1.5 m/s |
| 0.5 | 7.9 |
| 1.0 | 12.6 |
| 1.5 | 19.5 |
| 2.0 | 24.5 |
| 2.5 | 29.8 |
| 3.0 | 37.0 |
| 3.5 | 44.1 |
| 4.0 | 50.1 |
| 4.5 | 54.8 |

State your best assessment of the acceleration in the form of a y = mx + b equation with uncertainties and units.

What is the meaning of the intercept in this equation?

SHOW ALL WORK BELOW. (Label your work. Don’t just list numbers or coordinates or answers. Identify what you are calculating and how.)