

Significant Digits.

Record all digits that are certain plus one uncertain digit and no more.

ex 20.04 \rightarrow 4 significant Digits.

Rules for $\times \div + -$

1. All digits included in a stated value (except leading zeros) are significant
2. When $\times \div$ the answer has the same number of S.D. as the measurement with the fewest number of S.D.
- 3.

Mar 21-12:20 PM

3. If the digit to be retained as significant (rounding) is a 5 or greater round up.

4. When $+/-$ measured values of known precision, the answer has the same number of decimal places as the measured value with the fewest decimal places.

Mar 21-12:32 PM

(Scientific Notation)

Representing large #'s as an exponent of 10

3065 000,0

Significant Digits

3.065×10^6

Mar 21-12:38 PM

examples.

307.0 cm \rightarrow 4 SD

61 m/s \rightarrow 2 SD

0.03 m \rightarrow 1 SD

0.5060 \rightarrow 4 SD

2.5060 \rightarrow 5 SD

$A = \frac{1}{2} \times 3.2 \times 10.1$

$= 16.06 \rightarrow 16$ w. 2 SD

$A = \frac{1}{2} \times 6.21 \times 8.0$

$= 24.840 = 25$

$\Delta d_t = 104.2 + 11 + 0.67$

$= 115.87 \rightarrow 116$

$\Delta d_t = 5.5m + 0.597m + 0.1262m$

$= 6.2232 - 6.2m$

<http://www.youtube.com/watch?v=cJ76hz7jPM>

Mar 21-12:42 PM