

## Significant Digits

35.357291 cm ← way too precise for "Bounce that Ball"

$\overbrace{35}^{\text{certain}} \overbrace{.357291}^{\text{uncertain digit (doubtful)}}$

When counting significant digits, you count all the certain digits and the one uncertain digit.

$\overbrace{125}^{\text{certain}} \overbrace{.3}^{\text{uncertain}}$  → 4sd

$\overbrace{99}^{\text{certain}} \overbrace{.5}^{\text{uncertain}}$  → 3sd

## Basic Skill

17.  $\overbrace{2.9910}^{\text{certain}} \overbrace{.}^{\text{uncertain}}$  m → 5sd

19.  $\underbrace{0.00}_{\text{don't count}} \overbrace{670}^{\text{certain}}$  kg → 3sd  
 $6.70 \times 10^{-3}$  kg

20.  $\overbrace{809}^{\text{certain}}$  g → 3sd

18. 5600 km ← ambiguous ⇒ 2, 3 or 4sd

$5600.$  km     $5.6 \times 10^3$  → 2sd  
 $5600\bar{0}$  km     $5.60 \times 10^3$  → 3sd  
 $5600\bar{00}$  km     $5.600 \times 10^3$  → 4sd