Precision is NOT another way of saying accurate!

**Precision** is how _____ a measurement is. It is dependent on how many marks the measuring instrument was made with. All good measurements are one digit more precise than the smallest mark on the measuring instrument.

**Accuracy** is how _____ a measurement is. It is based on how well the instrument was made. All good measurements contain one (and only one) uncertain digit.

**Parallax** is a _____! It affects a measurement's _____! Ways to avoid parallax: Read perpendicularly to the instrument. Get the object and the instrument as close together as possible! Parallax CAN be a friend!

**Significant digits** (or significant figures) are those which have been read. The last digit was _____, therefore it contains _____. If we are reading someone else's numbers, we have to assume which ones are measured and which are not. There are rules for that!
Identifying significant digits:
1) All non-zero digits are significant.
2) All zeroes between significant digits are significant.
**3) Any zero BOTH to the right of a significant number AND to the right of the decimal is significant.**
4) All numbers in scientific notation before the "x" are significant.
5) All other zeroes are NOT significant.

Rounding is done to insure that only significant digits remain in your answer. Remember: all good measurements contain only ONE uncertain digit!

For +/-, the rule is: Round to the **least precise** digit.

For x/÷, the rule is: Round to the **smallest number** of significant figures.

14.297 + 2.93 = 17.227
Which digit is uncertain in 14.297? Which is uncertain in 2.93? Which number is least precise? calculator god says: 17.227 you slap him and say: _____

197.325 x 42.7 = When multiplying, we count! How many significant figures are in the first number? The second? Which number is smaller? How many significant figures should my answer have? calculator god says: 8425.7775 you slap him and say: _____ or _____.

For Homework! Please do Problems B and the Questions that follow them. The front of the unit 1 problem sheet should be completely done by next time There will be a quiz next time over sig figs, conversions and rounding!