

**3D.** From previous handout:

- Suppose a family had a \$10,000 income in 1975. Find the equivalent income in 1976. Put that in the 1976 row and label that column “income adjusted.”
- Find the equivalent income in 1977 to a \$10,000 income in 1975. Put that in the 1977 row.
- Find the equivalent income in 1978 to a \$10,000 income in 1978. Put that in the 1978 row.
- Suppose a family had a \$10,000 income in 1975. Find the equivalent income for each of the years in the table.

Talk with your group about this. When you take Test 2, you will have to do individual calculations like all of those in this section with only a calculator, not a spreadsheet. Do you understand clearly how to do these calculations with a calculator as well as on a spreadsheet?

**3E. Various tests (“Lie-detector” tests and Drug tests)**

**Activity 1.** Do exercise 18.

**3C: More about accuracy and precision**

When we worked exercise 56 in class, I said something important that wasn’t on our handout and I now think might not be clear in the text. So I’m going to say it here.

“Accuracy” can be discussed about particular measurements.

“Precision” is about a measuring instrument, or about the report of a measurement, not about the measurement itself.

Sometimes precision is stated explicitly, as in Example 6 and all of Exercises 55 – 58. In those cases, you discuss the precision solely from the reported precision of the measuring instrument and not from any measurements made with those instruments. Exercises 55 – 58 are asking you to distinguish between those two ideas and only to look at the appropriate part to answer each of the two questions.

Sometimes the precision is not stated, and you have to see what is implied by the **significant digits** in the report of the measurement. For example, a reported measurement of 60.3 cm implies that it is measured correctly to tenths of a centimeter. This is illustrated in our text in Exercises 17 – 28.

**Activity:** These are different reports of a measurement of the length of a table, because they convey differing amounts of precision in the measuring process:

2 meters, 2.0 meters, 2.00 meters, 2.000 meters, 2.0000 meters. If you were measuring a table in this room with a meter stick (like a yardstick) how much precision would you report in your measurement?