Rounding in calculations
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In general, do not round off any numbers in a multi-step calculation
until the final step. If you must round, keep lots of digits. A rule of
thumb is to round to the nearest 0.001, that is, to the nearest 3rd
digit to the right of the decimal point.

Exceptions: When calculating a z value, you may round to the nearest
0.01, because that's the level of accuracy in the z column on the normal
table. When calculating an area under the normal curve, you may usually
round the final answer to the nearest whole percent.

"football-shaped" or "shaped like a football"
(p.120 and throughout Ch 8--12)
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The text uses the term "football-shaped" very loosely to describe a
scatter diagram that has linear association. Worse, the term
"football-shaped" is sometimes used to imply homoscedasticity. Even
worse, "football-shaped" seems to sometimes imply that both variables
involved in the scatter diagram are normally distributed (see the box on
p.197). Because of this vagueness and ambiguity, we will instead use the
terms "shows linear association", "homoscedastic", and "normally
distributed" for these various attributes that may or may not apply to
2-variable data. In particular, in the box on p.197, and also in item 7
of the Ch 11 summary on p.201, replace the first sentence with "Suppose
that a scatter diagram shows linear association, is homoscedastic, and
that both variables are distributed normally."

outcome, event, and "thing"
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In a box model, an ***outcome*** is a sequence of tickets obtained by random
draws, either with or without replacement. For example, here are the 12
possible outcomes for 2 draws, without replacement, from the box
{A,K,Q,J}. (This is a box model for "two cards are dealt from a 4-card
deck containing an ace, a king, a queen, and a jack".)

    AK, AQ, AJ, KA, KQ, KJ, QA, QK, QJ, JA, JK, JQ

We say that the probability of each of these outcomes is 1/12, because
this is a complete list of the 12 equally likely possible outcomes for
the 2 draws.

An ***event*** is a collection of outcomes. For example, the events "get a Q"
and "get K on the first draw" in the example above are

    "get a Q" = QA, QK, QJ, AQ, KQ, JQ
    "get K on draw 1" = KA, KQ, KJ

We will use the correct terms "outcome" and "event" instead of the vague
term "thing" used in the text in Ch 13.

probability symbols
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We will write P(E) to denote the probability for an event E. For
example, in the game of 2 draws, with replacement, from the box {A,K,Q,J},
the probability of the single outcome AJ is

  P(AJ) = 1/12 = approx 8.3%.

The probability of getting a Q is

  P(get a Q) = 6/12 = 50%

because there are 6 equally likely outcomes in the event "get a Q" and
there are 12 equally likely outcomes in all for the 2 draws. The
probability of getting K on the first draw is

  P(get K on draw 1) = 3/12 = 25%

because there are 3 equally likely outcomes in the event "get K on draw 1".

We will write P(E|F) to denote the probability that event E happens given that event F has happened. For example, in 23 draws with replacement from the box {A,K,Q,J}, we have

  P(get a Q | get K on draw 1) = 1/3 = approx 33.3%

because there is 1 outcome, namely KQ, that has a Q, among the 3 outcomes that have K on draw 1. We also have

  P(get K on draw 1 | get a Q) = 1/6 = approx 16.7%

because there is 1 outcome, namely KQ, for which draw 1 is a K, among the 6 outcomes that have a Q.

The definitions of independent and dependent events (box on p.230) should be replaced by the following: "Two events E,F are *independent* if P(F|E) = P(F). Otherwise, the events E,F are *dependent*." Or in words, "Two events E,F are *independent* if the probability of F given that E has happened is equal to the probability of F. Otherwise, the events E,F are *dependent*."