5.3: INFINITE LOOPS

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An endless source of amusement for programmers is the observation that the directions on shampoo, "Lather, rinse, repeat," are an infinite loop because there is no *iteration variable* telling you how many times to execute the loop.

In the case of `countdown`, we can prove that the loop terminates because we know that the value of `n` is finite, and we can see that the value of `n` gets smaller each time through the loop, so eventually we have to get to 0. Other times a loop is obviously infinite because it has no iteration variable at all.