1. **DESCRIBE THE CONDITION** of an *if* block. (“The condition is a ...”)

2. For each of these kinds of statements, mark **CAN** if it can appear inside a clause of an *if* block, and mark **CANNOT** if it cannot appear inside a clause of an *if* block. **EXPLAIN** each.
   - (a) A named constant declaration
   - (b) A variable declaration
   - (c) A `printf` statement
   - (d) A `scanf` statement
   - (e) An assignment statement
   - (f) A `exit` statement
   - (g) An *if* block

3. When you write an *if*-block for idiotproofing, does the `exit` statement belong **before** the *if*-block, **inside** the *if*-block or **after** the *if*-block? Therefore, should the `exit` statement be indented **less than** the *if* statement, **the same as** the *if* statement, or **more than** the *if* statement?
4. The Kelvin temperature scale is very similar to the Celsius temperature scale, except that zero degrees Kelvin is *absolute zero*, the lowest physically conceivable temperature. Zero degrees Kelvin is -273.16 degrees Celsius.¹

Write a program that prompts for and inputs a temperature in degrees Kelvin, then idiot-proofs, then calculates the associated temperature in degrees Celsius, then outputs the temperature in degrees Celsius.

You **DON’T** have to use comments. Otherwise, all rules for Programming Projects (through PP#4) apply.

¹http://www.usatoday.com/weather/wtempcf.htm
5. **DESCRIBE THE CONDITION** of a *while* loop. (“The condition is a ...”)

6. Are the properties of the condition of a *while* loop the same as, or different from, the properties of the condition of an *if* block?

7. **WHAT ARE THE STEPS** that describe the execution of a *while* loop?
   (a) 
   
   (b) 
   
   (c) 

8. **HOW does a *while* loop **DIFFER** from an *if* block?"
9. For each of these kinds of statements, mark **CAN** if it can appear in the body of a **while** loop, and mark **CANNOT** if it cannot appear in the body of a **while** loop. **EXPLAIN.**

   (a) A named constant declaration

   (b) A variable declaration

   (c) A **printf** statement

   (d) A **scanf** statement

   (e) An assignment statement

   (f) A **exit** statement

   (g) An **if** block

   (h) A **while** loop
10. **TRACE** the example program on page 23 - 25 of the lecture packet titled “while Loop Lesson,” using the input values shown on slides 26 - 27. Your trace should show the following variables: `users_number`, `users_distance`, `users_last_distance` and `correct_number_hasnt BEEN input`, but in the trace you can abbreviate their names as `un`, `ud`, `uld` and `cnhbi`, respectively.

If you use **ANY** resources other than Dr. Neeman, the TAs (Ivanov, Kota, Smeltzer, Sunkara), the course textbook or the materials posted on the course webpage, you **MUST** reference them on the quiz. **THIS INCLUDES CLASSMATES, FRIENDS, PROFESSORS, ONLINE RESOURCES, ETC.**