AQS200 – Root Cause
Exercise 10d
Root Cause Identification – Fault Tree Analysis

Name: _____   Date: _____

Instructions:

    1. Use the problem provided below to create a Fault Tree Analysis Diagram.

Problem

This morning I woke up and had ***no hot water***, couldn't take a shower! I live in a house that uses a propane gas furnace for heat and hot water. Can you help me figure out what happened to the hot water?

Steps

1. Identify the problem (***no hot water***) to be analyzed and place it at the top of the tree diagram. (Refer to the template on page 2.) This is the ***top event***.

2. Brainstorm immediate causes at the level below the top event and plot these on the diagram respectively.

3. For each identified cause, assess whether it is the result of lower-level causes or represents a basic cause. Draw circles around basic causes not to be developed further and draw rectangles around intermediate causes.

4. For each that is not a basic cause, repeat steps 2 and 3 until the tree diagram only contains only basic causes at the lowest level of each branch.

5. In the case of more than one cause leading to the level above, use symbols to connect the branches in the diagram to indicate whether these operate together (***and***, symbolized by ⌂) or on their own (***or***, symbolized by △).

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Fault Tree Analysis Template