

3.1: This program compares two values (distances) and depending on which distance is bigger it prints an output. In our case it prints: "Lets go home!"

if the distance_home is equal or greater than distance_univeristy we change the output to "Since we are almost there..."

3.2.1 The output of the script will be:

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3.2.2 all of these evaluate to true

1. if "a"
2. if "false"
3. if bool("false")
4. if bool("False")
5. if 1
6. if 2
7. if -3

If statements check for the boolean value of the conditional. If there is no explicit comparison the bool value of the conditional is evaluated. For literals it generally checks if "something is there" basically if there is a value behind a variable for example. Integers evaluate to true as long as they are non-zero. Strings evaluate to true if their length is greater than 0 e.g. They have any content. Boolean expressions like True or False always evaluate to True and False respectively. None always evaluates to False, as the most general check that an if statement does is "is something there in the first place" and None does not check that box.