

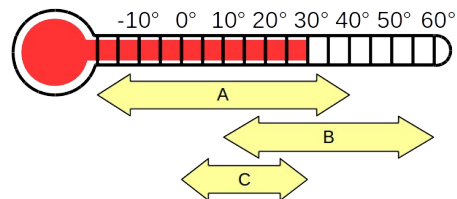
Making Decisions Review

Write programs that accomplish each task. Use appropriate variable names and prompts for user input when necessary. Include a header (comments) for each program, consisting of your name, student number, date, and brief description of the program, like the example below.

```
# J. Garvin (123456)
# 2020-09-30
# Given two positive integers, determine their sum.
```

1. Read two values from the user and display whether their sum falls between 100 and 200, if it is smaller, or if it is larger.
2. Ask the user to enter a positive, four-digit integer, then determine the following characteristics:
 - Is it larger than 6000?
 - Is it an even number?
 - Does it begin with a 9?
 - Does it begin and end with the same digit?
 Note: more than one condition may be true.
3. Generate two random real (decimal) values between 3 and 7 to represent the lengths of the two arms of a right triangle. Determine the length of the hypotenuse.
4. Generate three random integers between 2 and 20. Determine whether *any* of the three numbers is equal to the sum of the other two.
5. Generate a random number between 1 and 20. Have the user guess an integer between 1 and 20, and have the computer generate a random guess between 1 and 20. Display who was closer to the actual number. If it is a tie, indicate as such. If the player enters an invalid guess, display a message and halt.
6. All adhesives are not created equal. Some work well on certain materials, while others do not. Temperature is a major factor that must be considered when choosing an adhesive. If the temperature of the environment falls outside of an adhesive's optimal temperature range, it may not work as intended. Three types (A, B and C) have the optimal temperature ranges below:

- Type A: -20°C to 40°C
- Type B: 10°C to 60°C
- Type C: 0°C to 30°C



Given a minimum and maximum temperature from the user, determine all (if any) types of adhesive that can be used. Remember to check that the minimum temperature does not exceed the maximum.