Read each question carefully and *encircle* the appropriate choice.

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1. (1 point) The only language that is *completely* understood by computers is _____.
   A. C++
   B. Assembly language
   C. english language
   D. machine language

2. (1 point) Every C++ program *must* contain one _____ function.
   A. cout
   B. main
   C. using
   D. int

3. (1 point) Which of the following is *not* a C++ data type?
   A. int
   B. single
   C. float
   D. char

4. (1 point) Which of the following is *not* a C++ logical operator.
   A. &&
   B. !=
   C. ||
   D. !

5. (1 point) Which of the following expressions has *not* been computed correctly.

	Expression	Computes to
A	`(2.5 < 2.6 && 'c' != 'C')`	1
B	`(1 || 'd' > 'c' && 1)`	1
C	`(1 <= 6 % 2 && 2.05 > 20.5)`	0
D	`!('x' <= 'y' || 'x' >= 'y' && 5.5 > 3)`	0
E	`('c' != 'C' && 25 > 24 || 'a' > 'b')`	0

6. (5 points) Obesity can cause a number of problems including diabetes and heart disease. In order to determine whether a person is overweight or obese, a measure known as Body Mass Index (BMI) is used. BMI is defined as:

$$BMI = \frac{weight}{height^2}$$

where weight is taken in kilograms and height in meters.

In this problem, you are required to answer a few questions related to a program that takes *height* and *weight* of the user as an input, calculates his/her BMI, and displays a message such as "underweight", "healthy", "overweight" or "obese" based on the following graduation:

Expression	Output
BMI < 18.5	underweight
18.5 <= BMI < 25.0	healthy
25.0 <= BMI < 30.0	overweight
30.0 <= BMI	obese

(a) Which of the following gives a *correct* set of data types for each of the variables?

	height	weight	BMI
A	int	int	int
B	int	float	int
C	float	int	int
D	float	float	float

(b) Which of the following gives a correct set of True and False corresponding to numerical labels in the flowchart figure?

	1	2	3	4	5	6
A	True	False	True	True	False	False
B	False	True	False	True	True	False
C	False	False	True	True	True	False
D	True	False	True	False	True	False

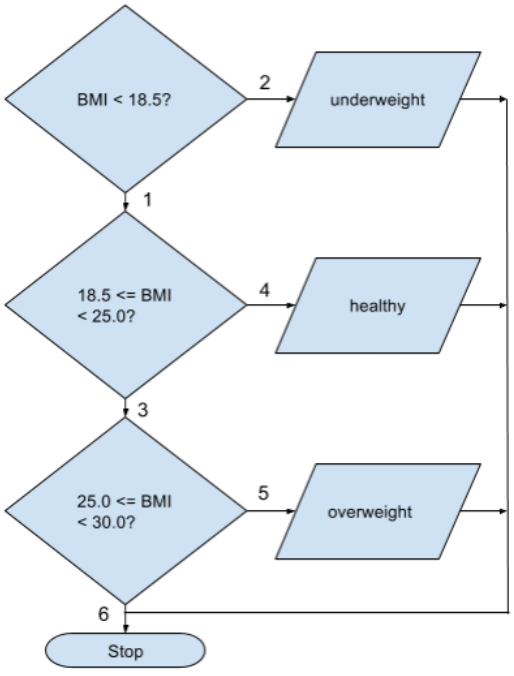

Figure: Decision block of the BMI calculator

(c) Which C++ decision statement would be most appropriate for programming the behavior as shown in the figure?

A. `switch` statement
B. nested `switch` statement (`switch` within a `switch`)
C. `if` statement
D. `if...else` statement