Conditional Logic Answers

Disclaimer: the code presented here is not the only solution. The best way to see if your solution works is to code it up and test it! We are always willing to check over your answer and talk with you about your logic!

Question 1

```java
int age = 20;
if (age < 20)
    System.out.println("You're a teen");
else if (age > 20);
    System.out.println("You are not a teen");
```

1. `int` should not be capitalized
2. No parenthesis around `age < 20`
3. Semi-colon after the `else if` condition
4. `20` never executes. This should be an `else` condition.

Question 2

Output:
You must help your parents!

```java
char first = str.charAt(0);
char last = str.charAt(str.length()-1);
if (first == 'f' && last == 'b')
    System.out.println("FizzBuzz");
else if (first == 'f')
    System.out.println("Fizz");
else if (last == 'b')
    System.out.println("Buzz");
```

Why didn't I use an `else` statement at the end?
Question 4

```java
switch(Character.toLowerCase(c0)){
    case 'a': case 'e': case 'i':
        case 'o': case 'u':
            System.out.println(c0);
    }
Why is there no break statement?
Why did I not use a default statement?
```

Remember:

|| (or) means that whenever one of these statements is true, the entire expression is true.

Question 5

```java
if ( a == b && a == c)
    System.out.println(a);
else if ( a == b || b == c)
    System.out.println(a + c);
else if ( a == c )
    System.out.println(a + b);
else {
    System.out.println(a + b + c);
}
```

Remember:

|| (or) means that whenever one of these statements is true, the entire expression is true.

Question 6

```java
if ( a == 6 ||
    b == 6 ||
    ( a + b ) == 6 ||
    Math.abs( a - b ) == 6 )
{
    System.out.println("true");
} else {
    System.out.println("false");
}
```

Remember:

|| (or) means that whenever one of these statements is true, the entire expression is true.