

Solutions:

```
(1) > class(A)
     > "numeric"
     > class(B)
     > "character"
     > class(C)
     > "character"
```

Vectors can only store items of a single type, so vector C gets converted into a vector only filled with "characters".

```
(2) > 2*A
     > 2 4 6 8
     > 2*C
     > Error in 2 * C : non-numeric argument to binary
operator
```

R recognizes that it does not make sense to multiply a character string by two, so it gives you an error.