

Pratice Problems: Set 2

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Read and understand the three given functions w/ trivial names and rename them

```
has_prefix <- function(string, prefix) {  
  substr(string, 1, nchar(prefix)) == prefix  
}  
  
remove_last <- function(x) {  
  if (length(x) <= 1) return(NULL)  
  x[-length(x)]  
}  
  
replicator <- function(x, y) {  
  rep(y, length.out = length(x))  
}
```

Write a function that prints “input must be numeric” if the function input is not numeric and returns two times the number otherwise.

```
must_be_num <- function(x) {  
  if (is.numeric(x)) {  
    rep(x, 2)  
  } else {  
    print("Input must be numeric.")  
  }  
}
```

Fizzbuzz

```
fizzbuzz <- function(x) {  
  if (x %% 3 == 0 && x %% 5 == 0) {  
    print("fizzbuzz")  
  } else if (x %% 3 == 0) {  
    print("fizz")  
  } else if (x %% 5 == 0) {  
    print("buzz")  
  }  
}
```

```
} else {  
  print(x)  
}  
}
```

Use the `cut()` function to simplify the given set of nested if-else statements.

```
if (temp <= 0) {  
  "freezing"  
} else if (temp <= 10) {  
  "cold"  
} else if (temp <= 20) {  
  "cool"  
} else if (temp <= 30) {  
  "warm"  
} else {  
  "hot"  
}
```

Fixed

```
feels <- function(x) {  
  cut(x, breaks = c(-Inf, 0, 10, 20, 30, Inf),  
      labels = c("freezing", "cold", "cool", "warm", "hot"),  
      right = FALSE)  
}
```