

INVALID PARAMETERS

Our `pv` function works on a vector of future values, not data frames, lists, or matrices. Let's add a warning in case a user tries to feed it a non-vector.

```
fv_l <- list(fv1 = 800,  
             fv2 = 900,  
             fv3 = 1100)
```

```
pv(fv_l, 0.08)
```

```
Error in pv(fv_l, 0.08) : FV must be an  
atomic vector
```

- Now when we execute `pv` on a non-atomic vector we get an **error output**

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Now let's add tests for the type of class input.

```
pv <- function(FV, r, n = 5) {  
  
  if(!is.atomic(FV)) {  
    stop('FV must be an atomic vector')  
  }  
  
  if(!is.numeric(FV) | !is.numeric(r) | !is.numeric(n)){  
    stop('This function only works for numeric inputs!\n',  
        'You have provided objects of the following classes:\n',  
        'FV: ', class(FV), '\n',  
        'r: ', class(r), '\n',  
        'n: ', class(n))  
  }  
  
  present_value <- FV / (1 + r)^n  
  round(present_value, 2)  
}
```

Now we test for

- data type
- argument class

and both of these will
provide **warnings if violated**