

week5quiz

```
mat1 <- matrix(c(1, -1, -1, -1), 2, 2)
mat2 <- matrix(c(2, -1, 3, -2), 2, 2)
mat3 <- matrix(0, 2, 2); mat3[1,1] <- 1
mat4 <- matrix(0, 3, 3,); mat4[1,2] <- mat4[2,1] <- mat4[3,3] <- 1
mat5 <- matrix(0, 3, 3); mat5[1,1] <- mat5[2,3] <- mat5[3,2] <- 1
```

2 Only C is idempotent (although multiplying D by itself yields idempotent, as does multiplying E by itself [both create the identity matrix]) 3 D and E are orthogonal

```
vec1 <- c(1,2)
mat1 <- matrix(c(1, 2, 3, 4), 2, 2)
arr1 <- array(1:4)
df1 <- data.frame(c(1,2))
lst1 <- list(c(1,2))
lstFinal <- c(vec1, mat1, arr1, df1, lst1)
```