

## Fill in with a sentence or two or fill in the command from UNIX (grep/sed):

1. Write a command in sed that would replace "REd" with "red" in this file?

```
Kite rats kite cash REd kite  
kite rats kite REd caSh rats  
kite rats kite caSh red green
```

2. Count the numbers of 'A', 'T', 'G', 'C' using multiple or single grep commands in example.fasta?

3. Write a sed command to delete lines containing the word 'kite' at the beginning of the string only?

```
Kite rats kite cash REd kite  
kite rats kite REd caSh rats  
Kite rats kite caSh red green  
kite rats kite caSh red green
```

4. Write a grep command that counts all AT's in these sequences? (give number of output)

```
>seq1  
ATCCGCGCATGCGCGGC  
>seq2  
ATATCCGCGCGCGCGAT
```

5. Write a grep command that counts all GC's in these sequences? (give number of output)

```
>seq1  
ATCCGCGCATGCGCGGC  
>seq2  
ATATCCGCGCGCGCGAT
```

6. Write a grep command that counts all AT and GC from these sequences (give number of output)

```
>seq1  
ATCCGCGCATGCGCGGC  
>seq2  
ATATCCGCGCGCGCGAT
```

7. Write a grep command that prints the line numbers of AT and GC from example.fasta file.

8. Write a sed command that deletes lines with last word being rat?

```
Rat Cat Mat Stat rat
rat cat maT stat cat
cat rat mat STat bat
```

9. Write a sed command that replaces 'Rat' with 'rat' in all cases?

```
Rat Cat Mat Stat rat
rat cat maT stat cat
cat rat mat STat bat
```

10. Write a sed command the makes all characters lower case in this data?

```
Rat Cat Mat Stat rat
rat cat maT stat cat
cat rat mat STat bat
```