GCF # 5
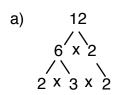
1. Use prime factorization to find all the prime factors for each of the following numbers. Each "level" should equal to the top number.

a)   12
        / \
      6 x 2
      / \   \
    2 x 3 x 2

b)   4
       / \

c)   6
       / \

d)   9
       / \

e)   14
       / \

f)   17
       / \

g)   20
       / \

h)   30
       / \

i)   54
       / \

j)   63
       / \

k)   64
       / \

l)   144
       / \

2. Find the GCF (Greatest Common Factor) using prime factorization.

a)

```
      8                 12
     / \               / \
    4 x 2             6 x 2
   / \   \          / \   \
  2 x 2 x 2        2 x 3 x 2
```

2 x 2 = 4

What is the GCF of 8 and 12? __4__

b)

```
   10        6
   /\       /\
    x        x
```

What is the GCF of 10 and 6? _____

c)

```
   9        36
   /\       /\
```

What is the GCF of 9 and 36? _____

d)

```
   18       42
   /\       /\
```

What is the GCF of 18 and 42? _____

e)

```
   75       70
   /\       /\
```

What is the GCF of 75 and 70? _____

f)

```
   81       27
   /\       /\
```

What is the GCF of 81 and 27? _____