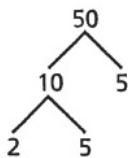# Prime Factorization

FACTORS AND FRACTIONS

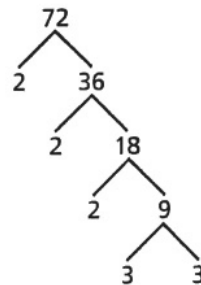**Prime Factorization:** Expressing a number as a product of primes.

```
        50                                              72
       /  \                                            /  \
     10    5                   26                      2   36
    /  \                      /  \                        /  \
   2    5                    2    13                     2   18
                                                            /  \
                                                           2    9
                                                               /  \
                                                              3    3
```

Therefore, $50 = 5 \times 5 \times 2$ Therefore, $26 = 2 \times 13$ Therefore, $72 = 2 \times 2 \times 2 \times 3 \times 3$

Find the prime factorization or state that the number is prime. Show your work on a separate peice of paper.

1) 66   **2)** 325   **3)** 23

4) ~~451~~   **5)** ~~492~~   **6)** ~~29~~

7) 674   **8)** 99   **9)** 225

10) 369   **11)** 184   **12)** 208

13) ~~49~~   **14)** 148   **15)** ~~29~~

16) 132   **17)** 75   **18)** 128

19) ~~29~~   **20)** 48   **21)** 68