PRIMES AND COMPOSITES

Prime numbers have only two factors: one and the number itself.

Prime numbers less than 100 are: 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, and 97.

All other numbers less than 100 are composite except for one and zero. These two whole numbers are considered neither prime nor composite.

Prime factoring means to show the multiplication that equals a number using only factors that are prime numbers. Each composite number has one and only one prime factorization.
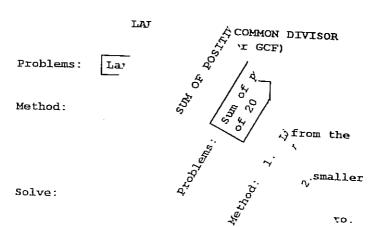
Problem: | Give the prime factorization of 40: |

Method: 1. Think of a mutliplication fact that equals the number given.

2. Continue factoring the numbers until all factors are prime numbers.

Solve: 1. Factor 40 until all numbers are prime.

2. Last line is the prime factorization.

40	40	40
4 x 10	5 x 8	2 x 20
2 x 2 x 2 x 5	5 x 4 x 2	2 x 4 x 5
2 x 2 x 2 x 5	5 x 2 x 2 x 2	2 x 2 x 2 x 5
2^3 x 5	2^3 x 5	2^3 x 5

TRY THESE:

1. 75   2. 48

3. 45   4. 100

LAJ

Problems: | La‌⌐

Method:

SUM OF POSITIV‌ COMMON DIVISOR
'‌x GCF)

Sum of p‌
Sum of 20
of 20

Problems:

Method: 1.

1) from the

2. smaller

Solve:

ro.

2. 3 is the la‌_
   divisor (facto‌⌐.

Solv‌

__3__   Answer

TRY THESE:

1. Largest prime divisor of 20.

2. Largest prime divisor of 30.

3. Largest prime divisor of 50.

4. Largest prime divisor of 25.

5. Largest prime divisor of 32.

6. Largest prime divisor of 42.

7. Largest prime divisor of 55.

8. Largest prime divisor of 66.