Factoring

→ breaking up into multiplication.

prime factorization

prime: the only factors are one + itself

2, 3, 5, 7, 11, 13, 17, 19, 23,
29, 31, 37

Divisibility Rules

2: even

3: the sum of the digits is divisible by 3

4: the last 2 digits are divisible by 4.

3145<u>12</u>

5: ends in 5 or 0

6: divisible by 3+2

9: sum of digits is divisib by 9.

10: ends in zero

2742

2 | 1371

3 | 457

$\frac{457}{19} = 24...$

$2 \cdot 3 \cdot 457$

924

2 | 462

2 | 231

3 | 77

7 | 11

$2^2 \cdot 3 \cdot 7 \cdot 11$

Your turn

936