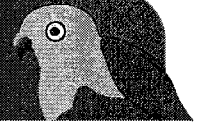


Factors and HCF

From: *A Maths Dictionary for Kids* by Jenny Eather at www.amathsdictionaryforkids.com

A factor is a whole number that divides exactly into another given number.

That is, a whole number that multiplies with another number to make a third number.



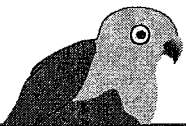
To find the factors of a number, first divide by 1 and then keep working down using the next lowest number that will divide exactly. Record each factor pair.

$$\begin{array}{c} 20 \\ \wedge \\ 1 \times 20 \\ \wedge \\ 2 \times 10 \\ \wedge \\ 4 \times 5 \end{array}$$

$$\begin{array}{c} 24 \\ \wedge \\ 1 \times 24 \\ \wedge \\ 2 \times 12 \\ \wedge \\ 3 \times 8 \\ \wedge \\ 4 \times 6 \end{array}$$

$$\begin{array}{c} 48 \\ \wedge \\ 1 \times 48 \\ \wedge \\ 2 \times 24 \\ \wedge \\ 3 \times 16 \\ \wedge \\ 4 \times 12 \\ \wedge \\ 6 \times 8 \end{array}$$

$$\begin{array}{c} 96 \\ \wedge \\ 1 \times 96 \\ \wedge \\ 2 \times 48 \\ \wedge \\ 3 \times 32 \\ \wedge \\ 4 \times 24 \\ \wedge \\ 6 \times 16 \\ \wedge \\ 8 \times 12 \end{array}$$



The HCF or GCF is the highest or greatest common factor that will divide two or more other numbers exactly.

Finding the HCF or GCF

- List the factors for each number.
 20 1, 2, 4, 5, 10, 20
 24 1, 2, 3, 4, 6, 8, 12, 24
- List the common factors.
1, 2, (4)
- Record the highest. HCF or GCF = 4



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