

Greatest

Common

Factor

It's important to know the GCF when

Simplifying Fractions

~~Finding common~~
Ratios

2

Key Words
For a GCF
Word Problem:

largest
greatest
No left over!

Split up
Divide

Example Word Problems:

Miguel wants to create party favors at his birthday party. He has 20 temporary tattoos and 16 pieces of candy. If each party bag is going to be identical, and Miguel doesn't want anything left over what is the greatest number of party bags he can make?

Why is this a GCF problem? greatest # of party bags

Tom baked 28 cookies and 36 brownies to package and give away to his teachers at school. If he wants all of the teachers to receive the same number of cookies and brownies, and doesn't want any left over, how many plates can he make?

Why is this a GCF problem? No left over.

Sample Problem: ^{cookies} ^{brownies}
Find the GCF of 24 and 36.

$$\begin{array}{r} 2 \ 3 \\ 12 \overline{) 24 \ 36} \end{array}$$

$$\begin{array}{r} 2 \ 3 \\ 12 \overline{) 24 \ 36} \\ \underline{3 \ 6 \ 9} \\ 4 \ 24 \ 36 \\ \underline{4 \ 24 \ 36} \end{array} \quad \begin{array}{r} 2 \ 3 \\ 12 \overline{) 24 \ 36} \\ \underline{2 \ 4 \ 6} \\ 6 \ 24 \ 36 \\ \underline{6 \ 24 \ 36} \end{array}$$