

Steps for Factoring Out

the problem
will look
something
like this

$$\longrightarrow 24 + 18x$$

- * no parentheses
- * no outside term

Step 1: find the factors of each number

$$\begin{array}{l} \underline{24} \\ 1 \times 24 \\ 2 \times 12 \\ 3 \times 8 \\ 4 \times 6 \end{array} \quad \text{GCF} \quad \begin{array}{l} \underline{18} \\ 1 \times 18 \\ 2 \times 9 \\ 3 \times 6 \end{array}$$

Step 2: find the Greatest Common Factor (GCF)

Step 3: "factor out" the GCF

Step 4: writing the GCF as the outside term
by
 $6(\quad + \quad)$

Step 5: divide each term in the original problem by the GCF to calculate the terms on the inside of the ().

GCF goes outside $\rightarrow 6$

$$24 + 18x$$
$$6(4 + 3x)$$
$$\frac{24}{6} = 4$$
$$\frac{18x}{6} = 3x$$

$$6(4 + 3x)$$

final answer