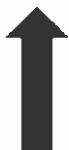# 3.4 EXTENSION FACTORING EXPRESSIONS

ESSENTIAL QUESTION: What does it mean to factor an expression and how do you do it?

In the last section we learned about using the Distributive Property to simplify an expression.

If we simplify $4(10d - 9)$ → $4 \cdot 10d - 4 \cdot 9$ → $4d - 36$

Problem

Answer

When factoring an expression you are doing the opposite of simplifying the expression above. You are going to start with the answer and come up with the problem

EXAMPLE 1
Factor the expression using the GCF.

1) $20 - 12$

$4(5-3)$

2) $24 - 18$

$6(4-3)$

3) $32 + 16$

$16(2+1)$

EXAMPLE 2
Factor the expression using the GCF.

1) $5x + 15$

$5(x+3)$

2) $4 - 12x$

$4(1-3x)$

3) $28w + 20$

$4(7w+5)$

4) $4y + 10$

$2(2y+5)$

5) $16x - 24$

$8(2x-3)$

6) $6x - 42$

$6(x-7)$