

Factoring Linear Expressions

If the terms in an expression share a common factor, you can **factor** that expression. That means you can rewrite it as a product.

Let's try it! Factor the expression $12a - 3b + 6$.

- First, find the greatest common factor of all the terms, which is 3.
- Next, rewrite each term with 3 as a factor.
- Then, factor out the 3 to rewrite the expression as a product.

$$12a - 3b + 6$$

$$3(4a) - 3(b) + 3(2)$$

$$3(4a - b + 2)$$



Check your answer!

To check your answer, distribute and make sure you get the expression you started with.

$$3(4a - b + 2)$$

$$12a - 3b + 6 \quad \checkmark$$

Now you try! Factor each expression. You can check your answer by distributing.

$8d + 20e$

$12r + 22$

$18a - 6b$

$15j + 50k$

$10f + 14$

$24x - 9y$

$60m + 24n$

$7g - 35$

$16u + 6v + 10$

$40a + 8b - 24$

$4r + 28s - 40$

$54e - 27f - 81g$