Name _____   Date _____   _____

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.

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

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

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

$8d + 20e$	$12r + 22$	$18a - 6b$	$15j + 50k$
$4(2d + 5e)$	$2(6r + 11)$	$6(3a - b)$	$5(3j + 10k)$
$10f + 14$	$24x - 9y$	$60m + 24n$	$7g - 35$
$2(5f + 7)$	$3(8x - 3y)$	$12(5m + 2n)$	$7(g - 5)$
$16u + 6v + 10$	$40a + 8b - 24$	$4r + 28s - 40$	$54e - 27f - 81g$
$2(8u + 3v + 5)$	$8(5a + b - 3)$	$4(r + 7s - 10)$	$27(2e - f - 3g)$