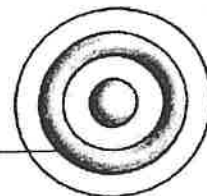


## LEARNING TARGETS

☐ I can factor out the greatest common factor from an algebraic expression



## FACTORS

Numbers have factors:

6

1, 2, 3, 6

Expressions have factors:

 $2x + 6$ 

2

## FACTORING

Factoring is the process of finding factors.

In other words, factoring is splitting apart an expression into multiplication of simpler expressions.

Factoring is the opposite of "expanded"		
FACTORED	EXPANDED	
$2(x + 3)$	$2x + 6$	GCF = 2
$5x(2 - 3x)$	$10x - 15x^2$	GCF = $5x$
$z(7 + 4z)$	$7z + 4z^2$	GCF = $z$
* The key to factoring is to find the <u>highest common factor</u> .		

Directions: Factor the expression.

1.  $6x + 9$

$$3(2x + 3)$$

$$\text{GCF} = 3$$

2.  $-20y - 5z$

$$5(-4y - z)$$

$$\text{GCF} = 5$$

3.  $15 - 3a$

$$3(5 - a)$$

$$\text{GCF} = 3$$

4.  $7y^2 + 21y$

$$7y(y + 3)$$

$$\text{GCF} = 7y$$

5.  $10z - 60$

$$10(z - 6)$$

$$\text{GCF} = 10$$

6.  $40b - 80c - 40d$

$$40(b - 2c - d)$$

$$\text{GCF} = 40$$