

# Algebra I

## Notes 11.2 A Geometric Model for Multiplication

Objective: Illustrate multiplication using a geometric model.

Complete this multiplication table.

	1	2	3	4	5	6	7	8	9	10
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

Use a multiplication table to compute the following:

$$2(3 + 4) = 2(\quad) =$$

	3 + 4	
2		=

$$-3(3 + -4) = -3(\quad) =$$

	3 + -4	
-3		=

$$4(a + 1) =$$

	a + 1	
4		

$$3(5 + 2) = 3(\quad) =$$

	5 + 2	
3		=

$$-1(-8 + -4) = -1(\quad) =$$

	-8 + -4	
-1		=

$$3(2a - 1) =$$

	2a - 1	
3		

$$10(1 + 6) = 10(\quad) =$$

	1 + 6	
10		=

$$-4(1 - 4) = -4(\quad) =$$

	1 - 4	
-4		=

$$2(3b + 4) =$$

	3b + 4	
2		

$$-2(3 + 6) = -2(\quad) =$$

	3 + 6	
-2		=

$$-8(3 - 5) = -8(\quad) =$$

	3 - 5	
-8		=

$$-9(b + 4) =$$

	b + 4	
-9		

$a(a + 2) =$

	$a + 2$
$a$	

$y^2(y + 1) =$

	$y + 1$
$y^2$	

$3a(a^2 + 2) =$

	$a^2 + 2$
$3a$	

$y(y + 4) =$

	$y + 4$
$y$	

$a^2(a - 5) =$

	$a - 5$
$a^2$	

$5y(y^2 + 4) =$

	$y^2 + 4$
$5y$	

$a(a - 7) =$

	$a - 7$
$a$	

$y^2(y - 4) =$

	$y - 4$
$y^2$	

$2a^2(a - 2) =$

	$a - 2$
$2a^2$	

$b(b - 1) =$

	$b - 1$
$b$	

$a^2(a^2 + 8) =$

	$a^2 + 8$
$a^2$	

$y(y^2 + 4y) =$

	$y^2 + 4y$
$y$	

$8a(a + 3) =$

	$a + 3$
$8a$	

$y^2(y^2 + 6) =$

	$y^2 + 6$
$y^2$	

$a^2(a^2 - 2a) =$

	$a^2 - 2a$
$a^2$	

$3y(y + 5) =$

	$y + 5$
$3y$	

$a(a^2 + a) =$

	$a^2 + a$
$a$	

$7y(y^2 + y^3) =$

	$y^2 + y^3$
$7y$	

$6a(a - 2) =$

	$a - 2$
$6a$	

$y(y^2 - y) =$

	$y^2 - y$
$y$	

$a^2(a - 12a) =$

	$a - 12a$
$a^2$	