Evaluating an Expression

Evaluating an expression is done by replacing a variable with a given value and then simplifying using order of operations.

Evaluate:	$3x + 7$	when $x = 5$
	$3(5) + 7$	Substitute 5 for the variable x
	$15 + 7$	Simplify using order of operations
	22	Simplify using order of operations

Evaluate:	$7x^2 + yz$	when $x = 2$, $y = 7$, and $z = 9$
	$7(2)^2 + (7)(9)$	Substitute 2 for x, 7 for y, and 9 for z
	$7(4) + (7)(9)$	Simplify using order of operations
	$28 + 63$	Simplify using order of operations
	91	Simplify using order of operations

Evaluate:	$2x - 3y$	when $x = 6$ and $y = -4$
	$2(6) - 3(-4)$	Substitute 6 for x and -4 for y
	$12 + 12$	Simplify using order of operations
	24	Simplify using order of operations

Evaluate:	$-3x - 5xy - z^2$	when $x = -2$, $y = 7$, and $z = -9$
	$-3(-2) - 5(-2)(7) - (-9)^2$	Substitute -2 for x, 7 for y, -9 for z
	$-3(-2) - 5(-2)(7) - 81$	Simplify using order of operations
	$6 + 70 - 81$	Simplify using order of operations
	-5	Simplify using order of operations

	Evaluate		Answers
1.	$5x - y$	when $x = 3$ and $y = 6$	9
2.	$5g^3p$	when $g = 4$ and $p = 7$	2240
3.	$-2y - z$	when $y = 9$ and $z = -2$	-16
4.	$abc - m^2$	when $a = -4$, $b = 3$, $c = -6$, $m = -5$	47
5.	$-r^2 + 3w^2$	when $r = 8$ and $w = -6$	44

