

# Review for Unit 7

## Test #2

Good luck to Key

Date \_\_\_\_\_ Hour \_\_\_\_\_

### Algebra: Unit 7 Review

Find each sum or difference. Write all answers in standard form.

1.  $(3x^2 - 6x + 5) + (4x^2 + 7x + 9)$

1.  $7x^2 + 1x + 14$

2.  $(5x - 6x^2 + 1) - (7x^2 + 2 - 4x)$

2.  $-13x^2 + 9x - 1$

Complete the table.

Polynomial	Put the Polynomial in <b>Standard Form</b>	Degree of the Polynomial	Leading Coefficient	Classification Based on Terms (ex: monomial)
$5 - x^2 + 3x$	$-x^2 + 3x + 5$	2	-1	Trinomial

Are the following expressions polynomials? If NO, why not?

4.  $2x^2 + 4x^{-1} + 10$

YES or NO

-1 is not a whole #

5.  $\frac{1}{2}x^3 + \frac{3}{2}$

YES or NO

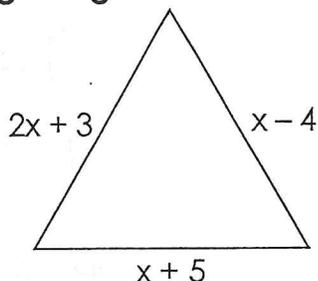
6.  $22 - x^5 + 3x^m$

YES or NO

Exponent cannot be a variable.

Find the perimeter of the following triangle.

7.



$$P = \frac{2x+3}{\quad} + \frac{x-4}{\quad} + \frac{x+5}{\quad}$$

$$\underline{\underline{P = 4x + 4}}$$

Distribute or FOIL to find the product of the following polynomials.

3.  $-3x(x^2 + 2x - 8)$

8.  $-3x^3 - 6x^2 + 24x$

9.  $(x+2)(x-2)$

	$x$	$2$
$x$	$x^2$	$2x$
$-2$	$-2x$	$-4$

9.  $x^2 - 4$

10.  $(2x+3)(5x-1)$

	$2x$	$3$
$5x$	$10x^2$	$15x$
$-1$	$-2x$	$-3$

10.  $10x^2 + 13x - 3$

11.  $(2x+3)^2$

	$2x$	$3$
$2x$	$4x^2$	$6x$
$3$	$6x$	$9$

11.  $4x^2 + 12x + 9$

12.  $(x+2)(x^2 - 4x + 5)$

	$x^2$	$-4x$	$5$
$x$	$x^3$	$-4x^2$	$5x$
$2$	$2x^2$	$-8x$	$10$

12.  $x^3 - 2x^2 - 3x + 10$

Write Polynomial Expressions to represent the PERIMETER and the AREA of the rectangle.

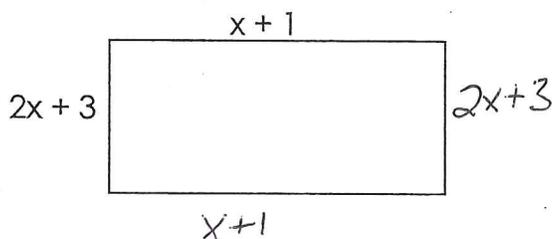
Evaluate each expression if  $x = 4$ .

$P = x+1 + 2x+3 + x+1 + 2x+3$

13.

$A = lw$

	$x$	$1$
$2x$	$2x^2$	$2x$
$3$	$3x$	$3$



$P = 6x + 8$

$P = 6(4) + 8$

$P = 24 + 8$

$A = 2x^2 + 5x + 3$

$A = 2(4)^2 + 5(4) + 3$

$A = 55 \text{ units}^2$

$P = 32 \text{ units}$