

Algebra I
11.1 Worksheet #1
Defining Polynomials

Name: _____
Date: _____ Hour: _____

What is the degree of each polynomial?

1. $7x^4$

2. $5x^3a^6$

3. $3x^3 + 5x^2 - 4x + 2$

4. $5a^3b^2$

5. 8

6. $5x^4 - 3x^3 + 5$

7. x^8y^3

8. $5b^4 - 2$

Classify each polynomial as a monomial, binomial, or trinomial.

9. $7x^2 - 8x$

10. $-6x^2$

11. $8m^3 - 5m^2 + 6m$

12. 5

13. $x^2 - 7x + 1$

14. $8x^4 - 3x^2 - 2x$

15. $3x$

16. $5y^2 - 25$

Give the polynomial in descending order of exponents.

17. $4x^2 + 3x^3 + 2x$

18. $-5x^2 - 6x^3 + 6x - 4$

19. $2 + 5x + x^2$

20. $3 - x - 2x^2 - x^3$

21. $x^3 + x^4 - 2 + x^2$

22. $a + a^3 - 5 + a^2$

In 1-3, classify each polynomial as a monomial, binomial, or trinomial.

1. $4 - 3x$

2. $3ab$

3. $4n^2 - 3n + 2$

In 4-6, give the degree of each polynomial.

4. $17 - 6y$

5. $3t^2 - 5t + 7t^3 - 10$

6. $4x^2$

In 7 and 8, write the polynomial in descending order of exponents.

7. $12 + 2x^3 - 4x^2 + x^5$

8. $8y - 6y^2 + 5 + 3y^3$

9. a. Write the polynomial $3 - 90x^3 + 4x^2 + x^5$ in descending order of exponents.

b. Give its degree. _____

10. How many terms does each of the following have?

a. trinomial

b. monomial

c. binomial

???? Trivia Question ????

The most snow to fall in a year was at Paradise, Mount Rainier, USA from 1971–1972. Can you guess the depth of the snow within 2 feet (24 inches)?

To check your TRIVIA answer:

- Give each answer as indicated.
- Write the matching words in order on the answer line below.

Decide whether each polynomial is a monomial, binomial, or trinomial.

Check the box in the correct column and circle the word below each checked box.

	Monomial	Binomial	Trinomial
1. $5a + 3$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Three	One	Twenty
2. $ab^2 + ab + 1$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	times	thousand	hundred
3. $9x$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	two	fifty	thirty
4. $n^2 + 2n$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	inches,	feet,	yards
5. $3y^2 + 4y + 6$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	the	an	enough
6. $x^2 + 2xy + y^2$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	that	and	to
7. $-5n$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	reach	completely	for
8. $9ab$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a	hours	houses

Use your mental math skills to evaluate each polynomial for $m = 3$, $n = 2$, $p = -4$, $r = -2$. Then circle the word that goes with each correct answer.

9. $2m + n$	8 third	12 deep	10. $m^2 + p^2$	36 floor	25 of	11. $m + n + p$	1 the	-24 lightning
12. $p^2 + r$	18 pole	14 way	13. mpr	-24 steel	24 up	14. $3n + m$	9 the	15 a
15. $2m + 3n + 2r$	8 Statue	16 State	16. $4p + 3r$	10 Capitol	-22 of	17. $2n^2 + 3n + 4$	10 building	18 Liberty

Answer: _____