

Name : _____

Grade 7 : _____

Date : _____

Activity 4: Algebraic Expressions and Polynomials

A. Matching Type. Match the definition in column A with the term being defined in Column B by drawing a line.

Column A

1. A term with no variables
2. Numbers attached to variables in a term
3. A part of an algebraic expression separated by the "+" or "-" signs
4. A polynomial with two terms
5. Terms with the same variable(s) of the same degree.

Column B

- Term
- Constant
- Monomial
- Binomial
- Coefficient
- Like terms
- Like coefficients

B. Tell whether the algebraic expression is a polynomial or not. Choose your answer on the right.

- | | | |
|----------------------------|----------------------------------|--------------------------------------|
| 6. $-7x + y$ | <input type="radio"/> POLYNOMIAL | <input type="radio"/> NOT POLYNOMIAL |
| 7. $\frac{4x}{y}$ | <input type="radio"/> POLYNOMIAL | <input type="radio"/> NOT POLYNOMIAL |
| 8. $8mn^{-1}$ | <input type="radio"/> POLYNOMIAL | <input type="radio"/> NOT POLYNOMIAL |
| 9. $5(x - 3)$ | <input type="radio"/> POLYNOMIAL | <input type="radio"/> NOT POLYNOMIAL |
| 10. $\sqrt{6m^2} + 1$ | <input type="radio"/> POLYNOMIAL | <input type="radio"/> NOT POLYNOMIAL |
| 11. $x^2 - 5xy + 7y^3$ | <input type="radio"/> POLYNOMIAL | <input type="radio"/> NOT POLYNOMIAL |
| 12. $\sqrt{x^2} + 1$ | <input type="radio"/> POLYNOMIAL | <input type="radio"/> NOT POLYNOMIAL |
| 13. $\frac{a+6}{7}$ | <input type="radio"/> POLYNOMIAL | <input type="radio"/> NOT POLYNOMIAL |
| 14. $9a^3 - 3a^2 + 2a - 5$ | <input type="radio"/> POLYNOMIAL | <input type="radio"/> NOT POLYNOMIAL |
| 15. $x^{\frac{1}{4}}y + 3$ | <input type="radio"/> POLYNOMIAL | <input type="radio"/> NOT POLYNOMIAL |

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C. Drag and drop the given terms at the right to the boxes to arrange the polynomials in standard form.

16. $-6x^3 + 1 - 3x + 5x^2$

17. $x^6 - 2x - 7 + 4x^3$

18. $+2x^3y - x^5 + 3xy^2 - x^4y^3$

D. Give the degree of each polynomial. Write your answer on the space provided.

19. 5 _____ degree

20. $y^3 - 2y^2 + y - 3$ _____ degree

21. $4z$ _____ degree

22. $x^2 - 5x + 1$ _____ degree

23. $7x^4y^2 - 2x^3y + 3$ _____ degree

24. $8x^5 + 3x^3 + x - 5$ _____ degree

25. $3x^4 + x^2y + xy + 2$ _____ degree