

Section 2.1 – Polynomials

Problem Set 3

Identify the following expressions as polynomials, monomials or neither. For the expressions that are polynomials, give their degree and list their terms.

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|---------------------------|-----------------------------------|--------------------------------|------------------------|
| 1. $n^{12} + 3$ | 2. $c^{-3} + 4$ | 3. $-2w^3 + \frac{4c^2}{2c^2}$ | 4. $3a^4 - p + 2$ |
| 5. a^9 | 6. $m^3 - 3n + \frac{4o^5p^2}{8}$ | 7. $a^2 + 4h^8 - 3r^{12}$ | 8. $y^5 + t^7 - 18$ |
| 9. $-4a + 2b^3c^{12} + 9$ | 10. $x^4afd + d^2 - 3x^{10}$ | 11. $4.1j + 6.22k - 4.2k$ | 12. $j^{\frac{11}{3}}$ |

Simplify the following expressions and identify them as polynomials, monomials or neither.

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|-----------------------------------|-------------------------------|----------------------------|-------------------------------|
| 13. $\frac{5b^4 - 3b + c}{4} + c$ | 14. $-\frac{6m^2}{7} + n + m$ | 15. $-2g^4 + 2g^3 - h + 7$ | 16. $12b^3 \cdot a \cdot b^4$ |
| 17. $8p - 2p + 9$ | 18. $7xy^2 + xy$ | 19. $4h - 6j$ | 20. $-2 + 3b + 3c^2 - b$ |