

## Section 2.1 – Polynomials

### Problem Set 2

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. $q^7 - q + \frac{3q^7}{4}$ | 2. $a^3bc + c^2$         | 3. $x^3$               | 4. $a^4 + b^4 - 3$         |
| 5. $3z^{12}$                  | 6. $6.1h + 2.91n - 5.2h$ | 7. $p^2 + 3q^2 - 2r^7$ | 8. $q^{\frac{4}{2}}$       |
| 9. $3hj + h^3j^7 + h + 9$     | 10. $p^{-8}$             | 11. $2u - e$           | 12. $c^2 + \frac{2c}{c^2}$ |

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

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|------------------------------|-----------------------------|------------------------------|-------------------|
| 13. $3e^7 \cdot e \cdot e^3$ | 14. $\frac{-3p^2}{7} + p$   | 15. $\frac{4a^2 - x - 3}{2}$ | 16. $3ab + ab$    |
| 17. $-7x - 2y$               | 18. $7 + 2b^2 + 3b^2 - b^2$ | 19. $5r^3 + 3r^3 - 2t + 7t$  | 20. $3x - 4x + 2$ |