

Name: _____
Algebra 1Date: _____
Band: _____**Unit 7: Polynomials & Factoring PBA Practice****What is the leading coefficient and degree of each polynomial? (You may want to rewrite each polynomial in standard form)**

1. $4r + 3 - 9r^2 + 7r$

2. $3 + b^3 + b^2$

3. $3 + 8t^2$

Simplify.

4. $(2v^3 - v + 8) + (-v^3 + v - 3)$

5. $(4h^3 + 3h + 1) - (-5h^3 + 6h - 2)$

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

7. $(3r - 2)^2$

8. A rectangle has dimensions $3x + 5$ and $x + 7$. What is the perimeter and area of the rectangle?

Factor.

9. $g^2 - 5g - 14$

10. $2n^2 + 3n - 2$

11. $p^2 + 8p + 12$

12. $r^2 + 6r - 40$

13. $d^2 - 18d + 45$

14. $10v^2 + 11v - 8$

Factor completely.

15. $32v^2 - 8$

16. $75x^2 - 108$

17. $18z^3 - 32z$

Factor by grouping.

18. $20r^3 + 8r^2 + 15r + 6$

19. $6d^3 + 3d^2 - 10d - 5$