

## Chapter 8 Review #1

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Write each polynomial in standard form. Then name each polynomial based on its degree and number of terms.

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

2.  $3 + 8t^2$

3.  $7x^2 + 8 + 6x - 7x^2$

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Simplify. Write each answer in standard form.

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

5.  $(8z^3 - 3z^2 - 7) - (z^3 - z^2 + 9)$

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Simplify each product. Write in standard form.

6.  $5k(3 - 4k)$

7.  $6g^2(g - 8)$

8.  $-2n^2(5n - 9 + 4n^2)$

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Factor out the GCF from each polynomial.

9.  $12p^4 + 16p^3 + 8p$

10.  $45c^5 - 63c^3 + 27c$

11.  $3t^4 - 6t^3 - 9t + 12$

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Simplify each product. Write in standard form.

12.  $(w + 1)(w + 12)$

13.  $(3r - 2)^2$

14.  $(7q + 2)(3q - 8)$

15.  $(7h - 3)(7h + 3)$

16.  $(4a - 7)(8a - 3)$

17.  $(4y + 5)(7y^2 - 4y + 3)$

18. A rectangular classroom has length  $3x + 5$  and width  $x + 7$ . What is the area of the classroom?

19. A rectangular campground has length  $4x + 7$  and width  $3x - 2$ . What is the area of the campground?