Adding and Subtracting Polynomials

Find the degree of each monomial.

1. $2b^2c^2$ **2.** $5x$ **3.** $7y^5$ **4.** $19ab$

5. 12 **6.** $\dfrac{1}{2}z^2$ **7.** t **8.** $4d^4e$

Simplify.

9. $2a^3b + 4a^3b$ **10.** $5x^3 - 4x^3$ **11.** $3m^6n^3 - 5m^6n^3$

12. $-6ab + 3ab$ **13.** $4c^2d^6 - 7c^2d^6$ **14.** $315x^2 - 30x^2$

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

15. $15x - x^3 + 3$ **16.** $5x + 2x^2 - x + 3x^4$ **17.** $9x^3$

18. $7b^2 + 4b$ **19.** $-3x^2 + 11 + 10x$ **20.** $12t^2 + 1 - 3x + 8 - 2x$

Simplify.

21.
$$\begin{array}{r} 8z - 12 \\ + \ 6z + 9 \\ \hline \end{array}$$

22.
$$\begin{array}{r} 9x^3 + 3 \\ + 4x^3 + 7 \\ \hline \end{array}$$

23.
$$\begin{array}{r} 6j^2 - 2j + 5 \\ + \ 3j^2 + 4j - 6 \\ \hline \end{array}$$

24. $(3k^2 + 5) + (16x^2 + 7)$ **25.** $(g^4 - 4g^2 + 11) + (-g^3 + 8g)$