Topic 1: Writing Polynomials in Standard Form

Directions: Write each polynomial in standard form.	
1. $a^2 + 3a^4 - 7a + 2a^3 - 4$	**2.** $8y^3 - 3xy^2 - x^2y + 2x^3$

Topic 2: Classifying Polynomials

Directions: Classify each polynomial by degree and number of terms.	
3. $3x + 12$	**4.** 24
5. $-7x^2 + 4x + 1$	**6.** $3x^4 - x^3 + 5x^2 + x - 7$

Topic 3: Simplifying Polynomials

Directions: Simplify each polynomial. Write all answers in standard form.	
7. $(2x^2 + 3x + 2) - (x^2 - 4x - 1)$	**8.** $2a^3(5a^2 - 7a) + (3a^4 - a^5)$
9. $5c^2d(9c^2d^2 - 4c^3d - 2)$	**10.** $-4y(5y - 11) - 2y(3y + 10)$
11. $(x - 1)(4x - 3)$	**12.** $(5y - 1)^2$
13. $(2x + 5y)(x - 3y)$	**14.** $(x + 4)(4x - 2) - 2x^2$
15. $\dfrac{-8x^2 + 28x^4 - 4x^3}{4x^2}$	**16.** $\dfrac{27c^4d^4 + 15c^3d^3}{3c^2d^3}$