

1. Multiply: a) $(3x^2 - 4)(x^3 - x + 1) =$

b) $(3x - 7)(ax - y + 2) =$

2. Factor these polynomials:

a) $x^2 + 7x + 12$

b) $x^3 + 8$

c) $16x^2 - 8x + 1$

d) $2x^2 - 5x - 3$

3. Factor and simplify: a) $x^{1/2}(x-5)^3 + x^{-1/2}(x-5)^4$

b) $\frac{1}{2}(2x+3)^{-1/2}(2)(x^2-1)^5 + (2x+3)^{1/2}(5)(x^2-1)^4(2x)$

4. Simplify and eliminate any negative exponents: $(8a^{-6}b^{3/2})^{2/3}$