Practice worksheet | Real Polynomials

Polynomial notation and operations

Name: _____ Date: _____

6 questions | 12 marks

1. State the degree and leading coefficient of $7 - 2x^4 + x$. [2 marks]

2. Which are polynomials in x: $x^2 + \sqrt{3}$, $x^{-2} + 1$, $\sqrt{x} + 2$? [2 marks]

3. Add $4x^3 - x^2 + 6$ and $-x^3 + 3x - 8$. [2 marks]

4. Simplify $(2x^2 - 5x + 1) - (3x^2 + x - 4)$. [2 marks]

5. Expand $(x + 2)(x^2 - 3x + 5)$. [2 marks]

6. A non-zero cubic is multiplied by a non-zero quartic. What is the degree of the product? Can their sum have degree 3? [2 marks]