Polynomials - Dividing a Polynomial by a Binomial

Below are seven division problems with the solution. However, part of the solution below is covered with a black square containing a letter. Match the letter with the part of the solution that belongs under the square at the bottom of the page to discover an Ancient Chinese Curse.

1. $(4x^4 - 10x^2 - 25) \div (x + 2) =$ **A** $- 8x^2$ **H** $- 12 - \frac{1}{x+2}$

2. $(2x^5 - 15x^3 - 19x + 22) \div (x + 3) = 2x^4$ **U** $+ 3x^2$ **V** $+ 8 + \frac{\text{E}}{x+3}$

3. $(3x^4 + 8x^3 - 4x^2 + 1) \div (x + 1) =$ **O** $+ 5x^2$ **B** $+ 9 + \frac{\text{Y}}{x+1}$

4. $(3x^4 - 2x^3 - 15x^2) \div (x + 2) = 3x^3$ **I** $+ x - 2 + \frac{\text{G}}{x+2}$

5. $(3x^5 + 5x^4 - 5x^2 + 3x) \div (x + 1) = 3x^4$ **R** $- 2x^2$ **M** $+ 6 + \frac{\text{T}}{x+1}$

6. $(x^4 + 5x^3 + 5x^2 - 4x - 1) \div (x + 3) =$ **W** $+ 2x^2$ **D** $- 1 + \frac{2}{x+3}$

7. $(2x^4 + 12x^3 + 10x^2 - 29x - 20) \div (x + 4) = 2x^3$ **N** $- 6x$ **S**

$-3x$ $4x^3$ -8 -8 $3x^3$ $-6x^3$ $2x^3$ -2 $-9x$ -2 $2x^3$ -8

x^3 $-8x^2$ -5 $6x$ $-9x$ -2 4 $2x^3$ $4x^3$ $4x^2$ -6 -2 $-x$