Divide the following polynomials using synthetic division

$$(6x^3 - 14x^2 + 10x - 4) \div (x + 1)$$

Divide the following polynomials using synthetic division

$$(3x^3 + x^2 - 5) \div (x + 4)$$

Divide the following polynomials using synthetic division

$$(x^4 + 3x^3 - 7x^2) \div (x - 2)$$

Divide the following polynomials using synthetic division

$$(x^3 + 2x^2 - x - 2) \div (x + 2)$$

Divide the following polynomials using synthetic division

$$(2x^3 - 3x + 7) \div (x - 3)$$