Polynomials 6a – Polynomial Long Division
Homework #11
Use Polynomial Long Division.

1. $\left(2x^3 - x^2 + x - 14\right) \div \left(x - 2\right)$

2. $\dfrac{x^3 + x^2 + x - 3}{x - 1}$

3. $\left(x^4 - 2x^3 - 14x^2 - 15x - 11\right) \div \left(x + 2\right)$

4. $\dfrac{x^3 - 5x - 4}{x + 1}$

Use Polynomial Long Division to rewrite the function in factored form.

5. $f(x) = 3x^3 + x^2 - 4x$ given factor $x - 1$

6. $f(x) = x^3 - 5x^2 + 4x + 4$ if $x = 2$ is a zero.

7. $f(x) = 12x^3 - 11x^2 + 9x + 18$ given factor $4x + 3$

8. $f(x) = 5x^2 - 11x - 12$ if $x = 3$ is a zero.

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