1. Combine: $(x^3 + 5x^2 - 7x + 3) - (4x^3 - 7x^2 + 8x - 9)$

2. Multiply: $(x - 8)(x + 3)$

3. Multiply: $(8x - 1)(4x + 3)$

4. Multiply: $(x + 2)^2$

5. Simplify: a) $\dfrac{10x^2 y^7}{50xy^{12}}$ b) $(2a^2 x)(8a^5 x^3)$

6. Simplify: a) $\left(\dfrac{2x^3 y^{-3}}{4x^{-2} y} \right)^2$ b) $(2x^2 y^5)^3$

7. Divide using long division: $\dfrac{x^2 + 4x - 2}{x - 3}$

8. Divide using long division: $\dfrac{x^2 - 8x - 3}{x + 2}$

9. Given $f(x) = x^2 - 6x + 2$ find $f(-3)$

10. Given $f(x) = x^2 + 5x + 1$ and $g(x) = x - 2$ then find $f \circ g$ and $g \circ f$