

Warm up Week of 2.13

Monday

1. Given the function, $f(x) = -2x - x^2$, find the value of $f(-3)$.
2. Given the functions $f(x) = -x + 2x^3$ and $g(x) = 3x + 1$, find the value of $f(-2) + g(5)$.

Tuesday

1. Simplify: $(-3m^3n^{-4}p)^3$
2. Simplify: $(4ab^2c^{-7})(9abc)$

Wednesday

1. Describe the end behavior of the polynomial: $-3x - 5x^3 + 4x^2 + 11$
2. Describe the end behavior of the polynomial: $5x^4 - 6x^3 + 2x^2 - x$

Thursday

1. The area of a rectangle can be modeled by the expression: $2x^2 + 11x + 15$. The width measures $(x + 3)$. Find the expression that represents the length.
2. Given $f(x) = x^2 + 3$ and $g(x) = 2x + 5$, find $f \circ g(x)$.

Friday

1. Find the remainder using synthetic division: $2x^3 - 4x^2 + x - 6 \div (x - 2)$
2. Find the remainder using synthetic division: $5x^4 - 7x^2 + 3x + 9 \div (x + 1)$