Advanced Functions · Grade 12

Name _____ Date _____ Score _____ / 5

01

Using the Remainder Theorem, find the remainder when $f(x) = 2x^4 - 6x^3 + 2x^2 - x$ is divided by $(x - 2)$ =

02 Describe the end behaviour of $f(x) = 6x^3 - 8x^2 + 8$ =

03 Is $f(x) = x^4 - x^2 + 4$ even, odd, or neither? =

04

Using the Remainder Theorem, find the remainder when $f(x) = -9x^4 + 7x^3 - 2x + 1$ is divided by $(x - 2)$ =

05

Using the Remainder Theorem, find the remainder when $f(x) = -3x^4 - x^3 + 7x^2 + 5x - 9$ is divided by $(x + 1)$ =

Advanced Functions · Grade 12 (Answer Key)

01

Using the Remainder Theorem, find the remainder when $f(x) = 2x^4 - 6x^3 + 2x^2 - x$ is divided by $(x - 2)$ =

-10

02 Describe the end behaviour of $f(x) = 6x^3 - 8x^2 + 8$ =

As $x \to -\infty$, $f(x) \to -\infty$; as $x \to +\infty$, $f(x) \to +\infty$.

03 Is $f(x) = x^4 - x^2 + 4$ even, odd, or neither? = **Even**

04

Using the Remainder Theorem, find the remainder when $f(x) = -9x^4 + 7x^3 - 2x + 1$ is divided by $(x - 2)$ =

-91

05

Using the Remainder Theorem, find the remainder when $f(x) = -3x^4 - x^3 + 7x^2 + 5x - 9$ is divided by $(x + 1)$ =

-9