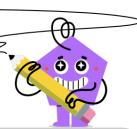


Function End Behaviour (Polynomials) -**Function to Behaviour**



What end behaviour would this function have?

$$f(x) = 2x^3 + 3x^2 + 3x \Big|_{f(x) = -2x + 2}$$

$$\begin{array}{l} \operatorname{as} x \to -\infty \text{, } y \to -\infty \\ \operatorname{as} x \to \infty \text{, } y \to -\infty \end{array} \begin{array}{l} \operatorname{as} x \to -\infty \text{, } y \to -\infty \\ \operatorname{as} x \to \infty \text{, } y \to \infty \end{array}$$

What end behaviour would this function

$$f(x) = -2x + 2$$

$$\begin{array}{c} \text{ as } x \to -\infty, y \to -\infty \\ \text{ as } x \to \infty, y \to -\infty \\ \\ \text{Bas } x \to -\infty, y \to \infty \\ \text{ as } x \to \infty, y \to -\infty \end{array}$$

What end behaviour would this 3 function have?

$$f(x) = -5x^7 - 5x^6 - 5x^5$$

What end behaviour would this 4 function have?

$$f(x) = -5x^7 - 5x^6 - 5x^5 | f(x) = 2x^3 - 3x^2 - 3x$$

$$\begin{vmatrix} \mathbf{a} & \mathbf{x} & \mathbf{b} & \mathbf{a} & \mathbf{a}$$

What end behaviour would this 5 function have?

What end behaviour would this function have?

$$|f(x) = -3x^4 - 5x^3 - 5x^2|f(x) = 5x^3 - 2x^2 - 2x$$

$$f(x)=5x^3-2x^2-2x$$

$$\begin{vmatrix} \mathbf{a} & \mathbf{x} & \mathbf{b} & -\infty, y \to \infty \\ \mathbf{a} & \mathbf{x} & \mathbf{b} & -\infty, y \to -\infty \end{vmatrix} \begin{vmatrix} \mathbf{a} & \mathbf{x} & \mathbf{b} & -\infty, y \to -\infty \\ \mathbf{a} & \mathbf{x} & \mathbf{b} & -\infty, y \to -\infty \end{vmatrix} \begin{vmatrix} \mathbf{a} & \mathbf{x} & \mathbf{b} & -\infty, y \to -\infty \\ \mathbf{a} & \mathbf{x} & \mathbf{b} & -\infty, y \to -\infty \end{vmatrix} \begin{vmatrix} \mathbf{a} & \mathbf{x} & \mathbf{b} & -\infty, y \to -\infty \\ \mathbf{a} & \mathbf{x} & -\infty, y \to -\infty \end{vmatrix} \begin{vmatrix} \mathbf{a} & \mathbf{x} & \mathbf{b} & -\infty, y \to -\infty \\ \mathbf{a} & \mathbf{x} & -\infty, y \to -\infty \end{vmatrix} \begin{vmatrix} \mathbf{a} & \mathbf{x} & -\infty, y \to -\infty \\ \mathbf{a} & \mathbf{x} & -\infty, y \to -\infty \end{vmatrix} \begin{vmatrix} \mathbf{a} & \mathbf{x} & -\infty, y \to -\infty \\ \mathbf{a} & \mathbf{x} & -\infty, y \to -\infty \end{vmatrix} \begin{vmatrix} \mathbf{a} & \mathbf{x} & -\infty, y \to -\infty \\ \mathbf{a} & \mathbf{x} & -\infty, y \to -\infty \end{vmatrix} \begin{vmatrix} \mathbf{a} & \mathbf{x} & -\infty, y \to -\infty \\ \mathbf{a} & \mathbf{x} & -\infty, y \to -\infty \end{vmatrix} \begin{vmatrix} \mathbf{a} & \mathbf{x} & -\infty, y \to -\infty \\ \mathbf{a} & \mathbf{x} & -\infty, y \to -\infty \end{vmatrix} \begin{vmatrix} \mathbf{a} & \mathbf{x} & -\infty, y \to -\infty \\ \mathbf{a} & \mathbf{x} & -\infty, y \to -\infty \end{vmatrix} \begin{vmatrix} \mathbf{a} & \mathbf{x} & -\infty, y \to -\infty \\ \mathbf{a} & \mathbf{x} & -\infty, y \to -\infty \end{vmatrix} \begin{vmatrix} \mathbf{a} & \mathbf{x} & -\infty, y \to -\infty \\ \mathbf{a} & -\infty, y \to -\infty \end{vmatrix} \begin{vmatrix} \mathbf{a} & \mathbf{x} & -\infty, y \to -\infty \\ \mathbf{a} & -\infty, y \to -\infty \end{vmatrix} \begin{vmatrix} \mathbf{a} & \mathbf{x} & -\infty, y \to -\infty \\ \mathbf{a} & -\infty, y \to -\infty \end{vmatrix} \begin{vmatrix} \mathbf{a} & \mathbf{x} & -\infty, y \to -\infty \\ \mathbf{a} & -\infty, y \to -\infty \end{vmatrix} \begin{vmatrix} \mathbf{a} & \mathbf{x} & -\infty, y \to -\infty \\ \mathbf{a} & -\infty, y \to -\infty \end{vmatrix} \begin{vmatrix} \mathbf{a} & \mathbf{x} & -\infty, y \to -\infty \\ \mathbf{a} & -\infty, y \to -\infty \end{vmatrix} \begin{vmatrix} \mathbf{a} & \mathbf{x} & -\infty, y \to -\infty \\ \mathbf{a} & -\infty, y \to -\infty \end{vmatrix} \begin{vmatrix} \mathbf{a} & \mathbf{x} & -\infty, y \to -\infty \\ \mathbf{a} & -\infty, y \to -\infty \end{vmatrix} \begin{vmatrix} \mathbf{a} & \mathbf{x} & -\infty, y \to -\infty \\ \mathbf{a} & -\infty, y \to -\infty \end{vmatrix} \begin{vmatrix} \mathbf{a} & \mathbf{x} & -\infty, y \to -\infty \\ \mathbf{a} & -\infty, y \to -\infty \end{vmatrix} \begin{vmatrix} \mathbf{a} & \mathbf{x} & -\infty, y \to -\infty \\ \mathbf{a} & -\infty, y \to -\infty \end{vmatrix} \begin{vmatrix} \mathbf{a} & -\infty, y \to -\infty \\ \mathbf{a} & -\infty, y \to -\infty \end{vmatrix} \begin{vmatrix} \mathbf{a} & -\infty, y \to -\infty \\ \mathbf{a} & -\infty, y \to -\infty \end{vmatrix} \end{vmatrix} \begin{vmatrix} \mathbf{a} & -\infty, y \to -\infty \\ \mathbf{a} & -\infty, y \to -\infty \end{vmatrix} \begin{vmatrix} \mathbf{a} & -\infty, y \to -\infty \\ \mathbf{a} & -\infty, y \to -\infty \end{vmatrix} \end{vmatrix} \begin{vmatrix} \mathbf{a} & -\infty, y \to -\infty \\ \mathbf{a} & -\infty, y \to -\infty \end{vmatrix}$$

What end behaviour would this 7 function have?

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What end behaviour would this function have?

$$f(x) = 3x^6 + 3x^5 + 3x^4 | f(x) = -4x^5 + 2x^4 + 2x^3$$

$$f(x) = -4x^5 + 2x^4 + 2x^3$$

$$\begin{vmatrix} \mathbf{A} \\ \mathbf{as} \ x \to -\infty, y \to \infty \end{vmatrix} \begin{vmatrix} \mathbf{B} \\ \mathbf{as} \ x \to -\infty, y \to \infty \end{vmatrix} \begin{vmatrix} \mathbf{A} \\ \mathbf{as} \ x \to -\infty, y \to \infty \end{vmatrix} \begin{vmatrix} \mathbf{A} \\ \mathbf{as} \ x \to -\infty, y \to \infty \end{vmatrix} \begin{vmatrix} \mathbf{B} \\ \mathbf{as} \ x \to -\infty, y \to \infty \end{vmatrix} \begin{vmatrix} \mathbf{B} \\ \mathbf{as} \ x \to -\infty, y \to \infty \end{vmatrix} \begin{vmatrix} \mathbf{B} \\ \mathbf{as} \ x \to -\infty, y \to \infty \end{vmatrix} \begin{vmatrix} \mathbf{B} \\ \mathbf{as} \ x \to -\infty, y \to \infty \end{vmatrix} \begin{vmatrix} \mathbf{B} \\ \mathbf{A} \\$$