

Predict end behaviour from degree and leading coefficient

- 1** What is the highest power and leading coefficient of this function?

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

A

highest power = 3
leading coefficient = -2

B

highest power = 3
leading coefficient = 2

- 2** Which function has this power and coefficient?

A

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

B

$$f(x) = -5x - 5$$

- 3** Which highest power and leading coefficient fits this end behaviour description?

A

highest power = 7
leading coefficient = -4

B

highest power = 7
leading coefficient = 4

- 4** Which function has this power and coefficient?

A

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

B

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

- 5** A function with which highest power and leading coefficient would have this end behaviour?

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

A

highest power = 4
leading coefficient = 2

B

highest power = 4
leading coefficient = -2

- 6** What end behaviour would this function have?

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

A

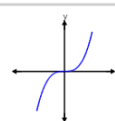
as $x \rightarrow -\infty, y \rightarrow \infty$
as $x \rightarrow \infty, y \rightarrow \infty$

B

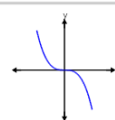
as $x \rightarrow -\infty, y \rightarrow -\infty$
as $x \rightarrow \infty, y \rightarrow -\infty$

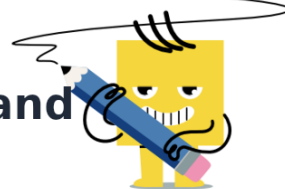
- 7** Which graph's end behaviour would this power and coefficient create?

A



B





Predict end behaviour from degree and leading coefficient

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What end behaviour would this power and coefficient create?

A

$$\text{as } x \rightarrow -\infty, y \rightarrow \infty$$

$$\text{as } x \rightarrow \infty, y \rightarrow -\infty$$

B

$$\text{as } x \rightarrow -\infty, y \rightarrow -\infty$$

$$\text{as } x \rightarrow \infty, y \rightarrow \infty$$

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What end behaviour would this power and coefficient create?

A

$$\text{as } x \rightarrow -\infty, y \rightarrow \infty$$

$$\text{as } x \rightarrow \infty, y \rightarrow -\infty$$

B

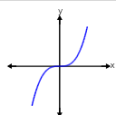
$$\text{as } x \rightarrow -\infty, y \rightarrow -\infty$$

$$\text{as } x \rightarrow \infty, y \rightarrow \infty$$

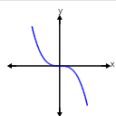
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Which graph's end behaviour would this power and coefficient create?

A



B

**11**

What end behaviour would this power and coefficient create?

A

$$\text{as } x \rightarrow -\infty, y \rightarrow \infty$$

$$\text{as } x \rightarrow \infty, y \rightarrow -\infty$$

B

$$\text{as } x \rightarrow -\infty, y \rightarrow -\infty$$

$$\text{as } x \rightarrow \infty, y \rightarrow -\infty$$