



Identify the degree and leading coefficient of a polynomial

1

Valid rational roots are in the form p/q where q must be a factor of the leading coefficient. What is the leading coefficient in this polynomial?

$$f(x) = 5x^3 + 10x^2 - 25x - 30$$

A 10

B 5

C -30

D -25

2

Valid rational roots are in the form p/q where q must be a factor of the leading coefficient. What is the leading coefficient in this polynomial?

$$f(x) = 6x^3 - 24 - 30x^2 + 48x$$

A 48

B 6

C -24

D -30

3

Which function has this power and coefficient?

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

B $f(x) = 4x^3 + 4x^2 + 4x$

4

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

$$f(x) = -3x + 2$$

A

highest power = 1
leading coefficient = -3

B

highest power = 1
leading coefficient = 3

5

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

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

A

highest power = 2
leading coefficient = -2

B

highest power = 1
leading coefficient = -2

6

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

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

A

highest power = 1
leading coefficient = 3

B

highest power = 2
leading coefficient = 3

7

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

$$f(x) = 4x - 5$$

A

highest power = 1
leading coefficient = 4

B

highest power = 2
leading coefficient = 4

8

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

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

A

highest power = 5
leading coefficient = 3

B

highest power = 4
leading coefficient = 3



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

$$f(x) = 4x - 4$$

A

highest power = 1
leading coefficient = -4

B

highest power = 1
leading coefficient = 4

10

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

$$f(x) = -4x - 4$$

A

highest power = 1
leading coefficient = -4

B

highest power = 1
leading coefficient = 4

11

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

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

A

highest power = 3
leading coefficient = -2

B

highest power = 4
leading coefficient = -2

12

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

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

A

highest power = 2
leading coefficient = 5

B

highest power = 2
leading coefficient = -5