



Classify polynomial functions by degree

1

Simplify by combining like terms.

$$8x + 8x^2 - 4 + x$$

A $8x^2 + 9x - 4$

B $8x^2 + 8x + x - 4$

C $8x^2 + 7x - 4$

D $8x^2 + 8x - 4$

2

Simplify by combining like terms.

$$8x + 1 + 2x^3 - 3x + 9x^2$$

A $2x^3 + 9x^2 + 5x + 1$

B $2x^3 + 9x^2 + 8x - 3x + 1$

C $2x^3 + 9x^2 + 11x + 1$

D $2x^3 + 9x^2 + 8x + 1$

3

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?

$$f(x) = 2x^4 - 6x^3 - 28x^2 + 96x - 64$$

A -6

B 2

C -28

D 96

4

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?

$$f(x) = 4x^3 - 20x^2 + 32x - 16$$

A 4

B -16

C 32

D -20

5

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

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

A
highest power = 3
leading coefficient = -3

B
highest power = 4
leading coefficient = -3

6

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

7

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

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

A
highest power = 2
leading coefficient = 3

B
highest power = 1
leading coefficient = 3

8

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

$$f(x) = 2x^7 + 5x^6 + 5x^5$$

A
highest power = 7
leading coefficient = -2

B
highest power = 7
leading coefficient = 2

**Classify polynomial functions by degree****9**

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

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

A

highest power = 2
leading coefficient = -4

B

highest power = 2
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 = 4
leading coefficient = -2

B

highest power = 3
leading coefficient = -2

12

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

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

A

highest power = 5
leading coefficient = -4

B

highest power = 4
leading coefficient = -4