Task card 1 Polynomial Degree & End Behavior

Find the degree and the leading coefficient of $f(x) = 4 + 3x^2$. Answer as: degree, leading coefficient.

Task card 2 Polynomial Degree & End Behavior

Describe the end behavior of $f(x) = 9x + 2x^2 + x^4 - 4x^5$. Does the graph go up or down at the left end and at the right end? Answer as: left, right (for example: down, up).

Task card 3 Polynomial Degree & End Behavior

What is the greatest number of turning points the graph of $f(x) = -2(x + 6)^2(x + 1)(x - 4)^2$ can have?

Task card 4 Polynomial Degree & End Behavior

Describe the end behavior of $f(x) = 2 - 3x - x^3 - 2x^6 + 9x^5 - x^4$. Does the graph go up or down at the left end and at the right end? Answer as: left, right (for example: down, up).

Task card 5 Polynomial Degree & End Behavior

Find the degree and the leading coefficient of $f(x) = 2(x - 1)^3(x - 2)$. Answer as: degree, leading coefficient.

Task card 6 Polynomial Degree & End Behavior

Describe the end behavior of $f(x) = -4(x - 1)^3(x - 3)^3(x - 6)^2$. Does the graph go up or down at the left end and at the right end? Answer as: left, right (for example: down, up).

Task card 7 Polynomial Degree & End Behavior

Find the degree and the leading coefficient of $f(x) = -2 + x + 5x^2$. Answer as: degree, leading coefficient.

Task card 8 Polynomial Degree & End Behavior

Describe the end behavior of $f(x) = 2(x + 4)^2(x + 3)^3$. Does the graph go up or down at the left end and at the right end? Answer as: left, right (for example: down, up).

Task card 9 Polynomial Degree & End Behavior

What is the greatest number of turning points the graph of $f(x) = -x^2(x + 4)(x - 1)^2$ can have?

Task card 10 Polynomial Degree & End Behavior

Describe the end behavior of $f(x) = -(x + 6)(x + 5)^3(x - 2)$. Does the graph go up or down at the left end and at the right end? Answer as: left, right (for example: down, up).

Task card 11 Polynomial Degree & End Behavior

Find the degree and the leading coefficient of $f(x) = (x + 1)(x - 5)^2$. Answer as: degree, leading coefficient.

Task card 12 Polynomial Degree & End Behavior

Describe the end behavior of $f(x) = 3x(x + 5)^3(x - 3)$. Does the graph go up or down at the left end and at the right end? Answer as: left, right (for example: down, up).

Task card 13 Polynomial Degree & End Behavior

Find the degree and the leading coefficient of $f(x) = 2x^6 - 7x^5 - 5x^4 - 1 + 9x + 4x^2$. Answer as: degree, leading coefficient.

Task card 14 Polynomial Degree & End Behavior

Describe the end behavior of $f(x) = (x + 3)(x - 1)^2$. Does the graph go up or down at the left end and at the right end? Answer as: left, right (for example: down, up).

Task card 15 Polynomial Degree & End Behavior

What is the greatest number of turning points the graph of $f(x) = -3 - x^4 - 2x^6 - 5x^2 - 7x^3 + x^5$ can have?

Task card 16 Polynomial Degree & End Behavior

Describe the end behavior of $f(x) = -x^3(x - 5)$. Does the graph go up or down at the left end and at the right end? Answer as: left, right (for example: down, up).

Task card 17 Polynomial Degree & End Behavior

Find the degree and the leading coefficient of $f(x) = -2x^5 - x^2 + 9x^3 + 2x + 6x^4$. Answer as: degree, leading coefficient.

Task card 18 Polynomial Degree & End Behavior

Describe the end behavior of $f(x) = -2(x + 4)^3(x - 3)$. Does the graph go up or down at the left end and at the right end? Answer as: left, right (for example: down, up).

Task card 19 Polynomial Degree & End Behavior

Find the degree and the leading coefficient of $f(x) = -(x + 3)(x - 2)^2(x - 6)^3$. Answer as: degree, leading coefficient.

Task card 20 Polynomial Degree & End Behavior

Describe the end behavior of $f(x) = 3(x + 5)^3(x - 2)(x - 4)$. Does the graph go up or down at the left end and at the right end? Answer as: left, right (for example: down, up).

Task card 21 Polynomial Degree & End Behavior

What is the greatest number of turning points the graph of $f(x) = 2(x - 2)^3(x - 5)^2$ can have?

Task card 22 Polynomial Degree & End Behavior

Describe the end behavior of $f(x) = 3(x - 1)^2(x - 5)^2$. Does the graph go up or down at the left end and at the right end? Answer as: left, right (for example: down, up).

Task card 23 Polynomial Degree & End Behavior

Find the degree and the leading coefficient of $f(x) = x(x + 2)^2(x - 5)$. Answer as: degree, leading coefficient.

Task card 24 Polynomial Degree & End Behavior

Describe the end behavior of $f(x) = x(x + 1)^2(x - 2)$. Does the graph go up or down at the left end and at the right end? Answer as: left, right (for example: down, up).

Polynomial Degree & End Behavior Task Cards

Recording sheet · Grade 11 · Answer each question about the polynomial function.

Name: _____ Date: _____

Scan to check your answers

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24

Polynomial Degree & End Behavior Task Cards: Answer Key

Grade 11 · Medium

The answers online

1. 2, 3	**2.** up, down	**3.** 4
4. down, down	**5.** 4, 2	**6.** down, down
7. 2, 5	**8.** down, up	**9.** 4
10. up, down	**11.** 3, 1	**12.** down, up
13. 6, 2	**14.** down, up	**15.** 5
16. down, down	**17.** 5, -2	**18.** down, down
19. 6, -1	**20.** down, up	**21.** 4
22. up, up	**23.** 4, 1	**24.** up, up