Task card 1 Polynomial Degree & End Behavior

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

Task card 2 Polynomial Degree & End Behavior

Describe the end behavior of $f(x) = -4(x + 3)(x - 1)^2(x - 6)$. 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 $f(x) = -(x + 2)(x - 3)^2$ can have?

Task card 4 Polynomial Degree & End Behavior

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

Task card 6 Polynomial Degree & End Behavior

Describe the end behavior of $f(x) = -4(x + 1)(x - 6)^3$. 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 7 Polynomial Degree & End Behavior

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

Task card 8 Polynomial Degree & End Behavior

Describe the end behavior of $f(x) = x^5 - 5x - 2 + 2x^3$. 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 $f(x) = 2 - x^5 - 7x^2 - 2x^4 - 7x^3$ can have?

Task card 10 Polynomial Degree & End Behavior

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

Task card 12 Polynomial Degree & End Behavior

Describe the end behavior of $f(x) = -4(x - 1)^3(x - 4)^3(x - 6)^2$. 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 13 Polynomial Degree & End Behavior

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

Task card 14 Polynomial Degree & End Behavior

Describe the end behavior of $f(x) = 3x^4 + 6x^2 - x^3 - 2x$. 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 $f(x) = -2(x + 3)^2(x - 2)^2(x - 4)^3$ can have?

Task card 16 Polynomial Degree & End Behavior

Describe the end behavior of $f(x) = -5x^2 + 2x^5 + 1 - 3x^3$. 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 17 Polynomial Degree & End Behavior

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

Task card 18 Polynomial Degree & End Behavior

Describe the end behavior of $f(x) = 2x + 2x^2 + 2x^4 + 1$. 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 $f(x) = -2(x + 6)^3(x + 2)(x - 3)^2$. Answer as: degree, leading coefficient.

Task card 20 Polynomial Degree & End Behavior

Describe the end behavior of $f(x) = -2(x + 4)^3(x + 2)$. 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 21 Polynomial Degree & End Behavior

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

Task card 22 Polynomial Degree & End Behavior

Describe the end behavior of $f(x) = (x + 3)(x - 4)^3$. 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 23 Polynomial Degree & End Behavior

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

Task card 24 Polynomial Degree & End Behavior

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

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 · Hard

The answers online

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