SASKATCHEWAN FOUNDATIONS OF MATHEMATICS 30 · UNIT D

Polynomial Functions and Data Analysis — Practice Test

Saskatchewan Foundations of Mathematics 30 • 25 questions

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **Values of a function at x = 0 , 1 , 2 , 3 , 4 are 0 , 1 , 4 , 9 , 16 . The degree of the polynomial function is**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **A polynomial of degree 5 with a positive leading coefficient and odd degree ends**

A. up on the left and down on the right

B. down on the left and up on the right

C. down on both ends

D. up on both ends

Understand It with Pulse | Flag a mistake

3 **A polynomial of degree 2 has leading coefficient 1. As x gets larger and larger, the function**

- A decreases without bound
- B increases without bound
- C approaches 0
- D approaches a constant

Understand It with Pulse | Flag a mistake

4 **The function y = (x - 4)(x + 4) has x-intercepts. The positive intercept is**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 A polynomial function of degree 3 has at most how many x-intercepts

- **A** 4
- **B** 2
- **C** 3
- **D** 6

Understand It with Pulse | Flag a mistake

6 The function y = (x - 1)(x + 1) has x-intercepts. The positive intercept is

ANSWER _____

Understand It with Pulse | Flag a mistake

7 The function y = (x - 1)(x + 4) has x-intercepts. The positive intercept is

ANSWER _____

Understand It with Pulse | Flag a mistake

8 **A polynomial function of degree 2 has at most how many turning points**

ANSWER _____

Understand It with Pulse | Flag a mistake

9 **A polynomial of degree 3 with a positive leading coefficient and odd degree ends**

A up on the left and down on the right

B down on both ends

C up on both ends

D down on the left and up on the right

Understand It with Pulse | Flag a mistake

10 **A polynomial of degree 5 has leading coefficient 1. As x gets larger and larger, the function**

- **A** increases without bound
- **B** decreases without bound
- **C** approaches 0
- **D** approaches a constant

Understand It with Pulse | Flag a mistake

11 **A polynomial function of degree 5 has at most how many x-intercepts**

- **A** 6
- **B** 5
- **C** 4
- **D** 10

Understand It with Pulse | Flag a mistake

12 **A polynomial of degree 2 has leading coefficient -2. As x increases without bound, the function**

- A increases without bound
- B approaches 0
- C decreases without bound
- D approaches a constant

Understand It with Pulse | Flag a mistake

13 **A polynomial of degree 4 has leading coefficient 1. As x gets larger and larger, the function**

- A decreases without bound
- B approaches 0
- C approaches a constant
- D increases without bound

Understand It with Pulse | Flag a mistake

14 **A polynomial function of degree 4 has at most how many x-intercepts**

- A 4
- B 5
- C 3
- D 8

Understand It with Pulse | Flag a mistake

15 **A polynomial of degree 4 has leading coefficient 2. As x gets larger and larger, the function**

- A decreases without bound
- B increases without bound
- C approaches 0
- D approaches a constant

Understand It with Pulse | Flag a mistake

16 **A polynomial of degree 4 with a positive leading coefficient and odd degree ends**

- A up on the left and down on the right
- B down on both ends
- C up on both ends
- D down on the left and up on the right

Understand It with Pulse | Flag a mistake

17 **A polynomial of degree 3 has leading coefficient -2. As x increases without bound, the function**

- A increases without bound
- B approaches 0
- C approaches a constant
- D decreases without bound

Understand It with Pulse | Flag a mistake

18 **A polynomial of degree 3 has leading coefficient 1. As x gets larger and larger, the function**

A increases without bound

B decreases without bound

C approaches 0

D approaches a constant

Understand It with Pulse | Flag a mistake

19 **A polynomial has a factor x minus 1. One zero of the polynomial is**

ANSWER _____

Understand It with Pulse | Flag a mistake

20 **Values of a function at x = 0 , 1 , 2 , 3 , 4 are 0 , 2 , 16 , 54 , 128 . The degree of the polynomial function is**

ANSWER _____

Understand It with Pulse | Flag a mistake

21 **The function y = (x - 4)(x + 1) has x-intercepts. The positive intercept is**

ANSWER _____

Understand It with Pulse | Flag a mistake

22 **A polynomial function of degree 5 has at most how many turning points**

ANSWER _____

Understand It with Pulse | Flag a mistake

23 **The function y = (x - 3)(x + 3) has x-intercepts. The positive intercept is**

ANSWER _____

Understand It with Pulse | Flag a mistake

24 **A polynomial of degree 5 has leading coefficient -2. As x increases without bound, the function**

- **A** increases without bound
- **B** decreases without bound
- **C** approaches 0
- **D** approaches a constant

Understand It with Pulse | Flag a mistake

25 **Values of a function at x = 0 , 1 , 2 , 3 , 4 are 0 , 1 , 8 , 27 , 64 . The degree of the polynomial function is**

ANSWER _____

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	2	**10.**	A	**19.**	1
2.	B	**11.**	B	**20.**	3
3.	B	**12.**	C	**21.**	4
4.	4	**13.**	D	**22.**	4
5.	C	**14.**	A	**23.**	3
6.	1	**15.**	B	**24.**	B
7.	1	**16.**	C	**25.**	3
8.	1	**17.**	D		
9.	D	**18.**	A		

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