Functions and Polynomial Functions — Practice Test

Prince Edward Island Foundations of Mathematics 12 • 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 **For the function $f(x) = x^2 - 4$, the value at $x = 5$ is**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **For the polynomial function with value given by $2x^2 + 3x + 1$, the value at $x = 2$ is**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **The degree of the polynomial $4x^5 + 2x^2 + 1$ is**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **When the polynomial $1x^3 + 0x^2 - 3x + 2$ is / (x - 2) , the remainder is**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **A polynomial function has**

A a whole number exponent on each term

B a variable in a denominator

C a square root of a variable

D a negative exponent always

Understand It with Pulse | Flag a mistake

6 **A quartic polynomial can have at most this many turning points**

- A 2
- B 5
- C 3
- D 4

Understand It with Pulse | Flag a mistake

7 **A turning point of a polynomial graph is a point where the graph**

- A becomes a straight line
- B has a hole
- C changes direction
- D crosses the y axis

Understand It with Pulse | Flag a mistake

8 **For the function $f(x) = x^2 + 3x$, the value at $x = 4$ is**

ANSWER _____

Understand It with Pulse | Flag a mistake

9 **For the polynomial $x^3 - 8$, the real zero is**

ANSWER _____

Understand It with Pulse | Flag a mistake

10 **If $x - 3$ is a factor of a polynomial , then the polynomial value at $x = 3$ is**

A 1

B -3

C 0

D 3

Understand It with Pulse | Flag a mistake

11 **The degree of the product of x^2 and x^3 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

12 **The domain of a polynomial function is**

A only positive numbers

B only integers

C numbers greater than zero

D all real numbers

Understand It with Pulse | Flag a mistake

13 **The end behaviour of a cubic with a positive leading coefficient is**

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

Understand It with Pulse | Flag a mistake

14 **The graph of a quadratic with a negative leading coefficient opens**

- A to the left
- B downward
- C upward
- D to the right

Understand It with Pulse | Flag a mistake

15 **The leading coefficient of $-2x^4 + x^2$ is**

ANSWER

Understand It with Pulse | Flag a mistake

16 **The leading coefficient of $3x^3 - x + 7$ is**

ANSWER

Understand It with Pulse | Flag a mistake

17 **The number of real zeros of $x^2 - 9$, counting multiplicity as one each , is**

ANSWER

Understand It with Pulse | Flag a mistake

18 **The number of x intercepts of $x^2 + 2x + 1$, counting multiplicity as one , is**

ANSWER

Understand It with Pulse | Flag a mistake

19 **The product of the zeros of $x^2 - 7x + 10$ is**

ANSWER

Understand It with Pulse | Flag a mistake

20 **For the function $f(x) = 2x^3$, the value at x = 3 is**

ANSWER

Understand It with Pulse | Flag a mistake

21 **For the polynomial function with value given by $1x^2 - 2x + 5$, the value at x = 3 is**

ANSWER

Understand It with Pulse | Flag a mistake

22 **The degree of the polynomial $2x^4 - 5x + 3$ is**

ANSWER

Understand It with Pulse | Flag a mistake

23 **When the polynomial $2x^3 - 1x^2 + 0x + 5$ is / $(x - 1)$, the remainder is**

ANSWER _____

Understand It with Pulse | Flag a mistake

24 **For the function $f(x) = 4x^2 - 1$, the value at $x = 2$ is**

ANSWER _____

Understand It with Pulse | Flag a mistake

25 **For the polynomial function with value given by $3x^2 + 0x - 4$, the value at $x = 2$ is**

ANSWER _____

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	21	**10.**	C	**19.**	10
2.	15	**11.**	5	**20.**	54
3.	5	**12.**	D	**21.**	8
4.	4	**13.**	D	**22.**	4
5.	A	**14.**	B	**23.**	6
6.	C	**15.**	-2	**24.**	15
7.	C	**16.**	3	**25.**	8
8.	28	**17.**	2		
9.	2	**18.**	1		

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