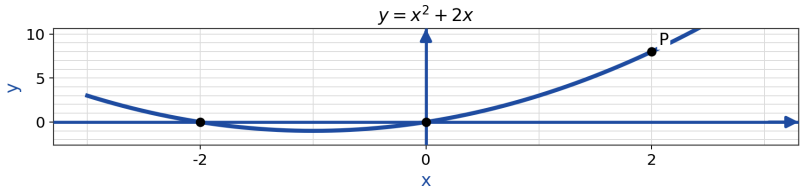
NOVA SCOTIA MATHEMATICS 12 · UNIT D · 25 QUESTIONS

Polynomial Functions — Practice Test

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 **The graph shows $y = x^2 + 2x$. Point P is at $x = 2$. Find the y value at P .**



ANSWER

Understand It with Pulse | Flag a mistake

2 **Find the value at $x = 3$ of $2x^2 + 1x + 1$.**

ANSWER

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3 **Find the value at $x = 2$ of $1x^2 + 3x + 2$.**

ANSWER

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4 **Find the value at x = 2 of $3x^2 + 1x + 2$.**

ANSWER _____

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5 **Find the value at x = 3 of $2x^2 + 2x + 1$.**

ANSWER _____

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6 **Find the value at x = 3 of $1x^2 + 1x + 4$.**

ANSWER _____

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7 **Find the value at x = 2 of $2x^2 + 3x + 2$.**

ANSWER _____

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8 **Find the value at x = 3 of $1x^2 + 4x + 1$.**

ANSWER _____

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9 **Find the value at x = 2 of $3x^2 + 2x + 1$.**

ANSWER _____

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10 **Find the value at x = 2 of $2x^2 + 1x + 5$.**

ANSWER _____

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11 **Find the value at x = 4 of $1x^2 + 2x + 2$.**

ANSWER _____

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12 **Find the value at x = 2 of $4x^2 + 1x + 1$.**

ANSWER _____

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13 **Find the value at x = 2 of $2x^2 + 4x + 1$.**

ANSWER _____

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14 **Find the value at x = 2 of $1x^2 + 5x + 3$.**

ANSWER _____

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15 **The degree of a polynomial is**

- A the highest power of x in it
- B the number of terms
- C the leading coefficient
- D the constant term

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16 **The leading coefficient is the coefficient of**

- A the constant term
- B the highest power term
- C the first term written
- D the x term

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17 **A polynomial of degree 2 is called**

A linear

B cubic

C quadratic

D quartic

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18 **A polynomial of degree 3 is called**

A quadratic

B quartic

C linear

D cubic

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19 **The end behaviour of a polynomial is governed mainly by**

A its leading term

B its constant term

C its middle term

D its smallest term

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20 **A polynomial with an even degree and a positive leading coefficient rises**

A on neither end

B on both ends

C on the left only

D on the right only

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21 **A polynomial with an odd degree and a positive leading coefficient falls on the left and**

- A falls on the right
- B rises on the left
- C rises on the right
- D stays flat

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22 **The remainder theorem says the remainder when a polynomial is divided by x minus a is**

- A zero
- B the value at 0
- C the leading coefficient
- D the value of the polynomial at a

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23 **The factor theorem says x minus a is a factor exactly when**

- A the polynomial value at a is zero
- B the polynomial value at 0 is zero
- C a is zero
- D the degree is 1

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24 **A polynomial of degree n has at most**

- A n + 1 real zeros
- B n real zeros
- C 2n real zeros
- D 1 real zero

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25 **The graph of a polynomial is**

A full of breaks

B made of straight lines only

C smooth and continuous

D always increasing

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ANSWER KEY

1.	8	**10.**	15	**19.**	A
2.	22	**11.**	26	**20.**	B
3.	12	**12.**	19	**21.**	C
4.	16	**13.**	17	**22.**	D
5.	25	**14.**	17	**23.**	A
6.	16	**15.**	A	**24.**	B
7.	16	**16.**	B	**25.**	C
8.	22	**17.**	C		
9.	17	**18.**	D		

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