



Republic of the Philippines
POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
COLLEGE OF ENGINEERING



LESSON 1: ALGEBRAIC EXPRESSIONS

PRE-TEST

No.	Tags	Questions	Answers
1	L1.1	<p>A ____ is a symbol which has exactly one number or a fixed value in its replacement set.</p> <p>a. Constant b. Variable c. Literal coefficient d. Arithmetic operation</p>	a
2	L1.1	<p>A ____ is a symbol, usually a letter, which represents a value or a number.</p> <p>a. Constant b. Variable c. Exponent d. Arithmetic operation</p>	b
3	L1.1	<p>What is the numerical coefficient of $10xyz$?</p> <p>a. 1 b. 10 c. xyz d. $10xyz$</p>	b
4	L1.1	<p>What is the literal coefficient of $-3axy$?</p> <p>a. 3 b. -3 c. axy d. $-axy$</p>	c
5	L1.2	<p>Which of the following is a term?</p> <p>a. $m+2$ b. $3(2x)$ c. $z+y+x$ d. $y^3 - x^3$</p>	b
6	L1.2	<p>Determine its number of terms: $x^4 - 3x + 4$</p> <p>a. 1</p>	c



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COLLEGE OF ENGINEERING



		b. 2 c. 3 d. 4	
7	L1.2	What is the number of terms in the expression below? $12x^4 + 3x^3 - 2x^2 + 1$ a. 1 b. 2 c. 3 d. 4	d
8	L1.2	Which of the following are similar terms? a. x and y b. $2x$ and $4x$ c. $3x^2$ and $6x^3$ d. $5x^2y$ and $5xy^2$	b
9	L1.3	Determine its degree: $x^4 - 5xy + 3$ a. 1 b. 2 c. 3 d. 4	d
10	L1.3	Determine its degree: $\frac{1}{3}x - \frac{1}{3}xy - 12$ a. 1 b. 2 c. 3 d. 12	b
11	L1.3	What is the degree of $\frac{x^4y}{2}$? a. 2 b. 3 c. 4 d. 5	d
12	L1.3	Determine its degree: $12x + 7$	c



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		a. 12 b. 0 c. 1 d. 2	
13	L1.4	A _____ is an algebraic expression which represents a sum of one or more terms that contain whole-number exponents on the variables. a. constant b. variable c. literal coefficient d. polynomial	d
14	L1.4	Which of the following polynomials is NOT written in standard form? a. $x^2y + 2z + 5$ b. $11x^2 + 2x^4 + 1$ c. $3x^3 + 3x^2$ d. $\frac{1}{2}x + 5$	b
15	L1.4	In the expression below, what is the leading coefficient? $x^5 + 3x^4 + 2x + 1$ a. 5 b. 4 c. 3 d. 1	d
16	L1.4	Which of the following is NOT a polynomial? a. $\sqrt{x} + 1$ b. $x^3 + xyz + 2$ c. $\frac{2x}{3} + 5$ d. $x^3 + x\sqrt{2}$	a
17	L1.5	What do you call a polynomial with three terms? a. Binomial b. Trinomial	b



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		c. Quadratic d. Cubic	
18	L1.5	What kind of polynomial is the expression below according to the number of terms? $3 - 5x + x^2 + x^3$ a. Quartic b. Monomial c. Binomial d. Polynomial	d
19	L1.5	What kind of polynomial is the expression below according to the degree? $x^2 + 2$ a. Linear b. Quadratic c. Binomial d. Quintic	b
20	L1.5	What kind of polynomial is the expression below according to the degree? $x^4 - 1$ a. Linear b. Quartic c. Quintic d. Quadratic	b



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POST-TEST

No.	Tags	Questions	Answers
1	L1.1	Identify: It is a symbol, usually a letter, that represents a value or a number. a. constant b. exponent c. variable d. polynomial	c
2	L1.1	What do you call a symbol which has exactly one number or a fixed value in its replacement set? a. constant b. literal coefficient c. variable d. polynomial	a
3	L1.1	What is the literal coefficient of $5xyz$? a. 5 b. 1 c. xyz d. $5xyz$	c
4	L1.1	What is the numerical coefficient of $-2x^2y$? a. 2 b. -2 c. x^2y d. xy	b
5	L1.2	Determine its number of terms: $x^2 + 2x + 7y + 2$ a. 1 b. 2 c. 3	d



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COLLEGE OF ENGINEERING



		d. 4	
6	L1.2	Which of the following is a term? a. $x + y$ b. $y^2 - 2x$ c. $2(-5y)$ d. None of the above	c
7	L1.2	What is the number of terms in the expression below? $3x^4 + 32 - 2x^2 + x$ a. 1 b. 2 c. 3 d. 4	d
8	L1.2	Which of the following are similar terms? a. $2x$ and $5y$ b. $2x^3$ and $2x^4$ c. $3x^2$ and $5x^3$ d. $2x^3y$ and $11x^3y$	d
9	L1.3	Determine its degree: $x^2 - xy - 4$ a. 1 b. 2 c. 3 d. 4	b
10	L1.3	Determine its degree: $80x - 22$ a. 80 b. -22 c. 0 d. 1	d
11	L1.3	Determine its degree: $x - 2xyz + 21$ a. 1 b. 2 c. 3	c



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		d. 4	
12	L1.3	<p>What is the degree of the expression below?</p> $\frac{x^2y^4}{3} + xz - 1$ <p>a. 2 b. 3 c. 4 d. 6</p>	d
13	L1.4	<p>Which of the following polynomials is written in standard form?</p> <p>a. $\frac{1}{5}x^5 + 2x^3 + 3x + 5$ b. $2x^3 + 2y^3 + x + y^2$ c. $11 + x^2$ d. $11x + 10y + 8x^2$</p>	a
14	L1.4	<p>In the expression below, what is the leading coefficient?</p> $-12x^4 + 11x^3 + x + 140$ <p>a. -12 b. 11 c. 1 d. 140</p>	a
15	L1.4	<p>An expression is NOT a polynomial if:</p> <p>a. The variable is inside a radical sign b. The exponent is not a whole number c. The variable is in the denominator d. All of the above</p>	d
16	L1.4	<p>Which of the following is a polynomial?</p> <p>a. $\frac{5}{x+20}$ b. $\sqrt{20}xyz + \frac{1}{3}$ c. $x^y + 2y$ d. $12\sqrt[5]{3x} + x^2$</p>	b



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COLLEGE OF ENGINEERING



17	L1.5	<p>What kind of polynomial is the expression below according to the degree?</p> $x^3 + 3 + x^5$ <p>a. Cubic b. Quartic c. Quadratic d. Quintic</p>	d
18	L1.5	<p>What kind of polynomial is the expression below according to the number of terms?</p> $7 + x$ <p>a. Linear b. Monomial c. Binomial d. Quadratic</p>	c
19	L1.5	<p>What kind of polynomial is a polynomial with five terms?</p> <p>a. Quintic b. Polynomial c. Quartic d. Trinomial</p>	b
20	L1.5	<p>What kind of polynomial is the expression below according to the degree?</p> $x + 21$ <p>a. Binomial b. Quadratic c. Monomial d. Linear</p>	d