

Polynomials Work Sheet

- Which of the following expression is a polynomial
 A) $3x^2 - \frac{1}{y}$ B) $x^2 + 7x + 12$ C) $x^{\frac{2}{3}} + x^3$ D) None
- Degree of the polynomial $9x^5y^6 + 4x^2y^3 - 17xy$
 A) 2 B) 4 C) 5 D) 11
- Subtract $8x^3 + 4x^2 + 2x$ from $7x^4 + 4x^3 + 3x^2 + 2$
 A) $7x^4 - 4x^3 - 7x^2 - 2x + 2$ B) $7x^4 + 12x^3 - 7x^2 - 2x - 2$
 C) $15x^4 - 4x^3 + 7x^2 + 2x + 2$ D) None
- $3x \times (3x + y)$
 A) $9x^2 + 3y$ B) $9x^2 + 3xy$ C) $9x^2 + y$ D) None
- Add $3a + 2b$; $6a + 9b$
 A) $3a + 7b$ B) $9a + 11b$ C) $12b + 8a$ D) None
- $(y + 2)(y - 2)$
 A) $y^2 - 4$ B) $(y + 2)^2$ C) $(y - 2)^2$ D) None
- Divide $4ax^2 + 8a^2x$ by $2ax$
 A) $2x + 4a$ B) $4x + 2a$ C) $-2x + 4a$ D) None
- If $a + b = -c$, then $a^3 + b^3 + c^3 =$
 A) $6abc$ B) $9abc$ C) $3abc$ D) $-3abc$
- Simplify $10x^7 \div 2x^4$
 A) $5x^3$ B) $5x^{11}$ C) $20x^3$ D) None
- Find the value of $(p+q)(p^2+3)$ when $p=-1$, $q=-2$
 A) 12 B) -12 C) -6 D) None

11. Find remainder when $x^3 - x^2 + x + 6$ is divided by $x + 1$
 A) 1 B) 2 C) 4 D) 3
12. If $f(x) = ax^2 + bx + c$ and $f(1) = 0$, $f(-1) = 5$, then find the value of $a + c$
 A) 2.5 B) 3.5 C) 3 D) 1.5
13. Write the polynomial after subtracting $-5p^2 - 7p - 8$ from sum of $p^2 + p + 7$ and $2p^2 - 5p - 3$
 A) $8p^2 + 3p - 12$ B) $8p^2 - 3p + 12$ C) $-8p^2 + 3p + 12$ D) $8p^2 + 3p + 12$
14. Add the polynomials $(xy + 3x + 2) + (3x^2 + y)$
 A) $3x^2 + 4xy + 2$ B) $3x^2 + 2xy + 3x + 2$
 C) $3x^2 + xy + 3x + y + 2$ D) $3x^2 + 5xy + 2$
15. The number of zeros of $x^2 + 4x + 2$
 A) 1 B) 2 C) 3 D) None
16. The degree of the polynomial $p(x) = x + \sqrt{x^2 - 1}$ is
 A) 0 B) 2 C) 1 D) 3
17. The polynomial of type $ax^2 + bx + c$, $a = 0$ is of ----- type
 A) Linear B) Quadratic C) Cubic D) Biquadratic
18. If one of the factors of $x^2 + x - 20$ is $(x + 5)$, find the other
 A) $x - 4$ B) $x - 2$ C) $x + 4$ D) $x - 5$
19. Find product of b^2 and $(-b^2 - 1)$ for $b = -2$
 A) -22 B) -16 C) -20 D) -25
20. In algebra ab means
 A) $a + b$ B) axb C) $a - b$ D) $\frac{a}{b}$