(1) If $p(3) = 0$, then a factor of $p(x)$ is ......

    (a) $(x - 3)$ (b) $(x - 2)$ (c) $(x + 3)$ (d) $(x + 2)$

(2) If $x^3 + 2x^2 - 6x + 9$ is divided by $x - 2$, then ...... is the remainder.

    (a) -13 (b) 13 (c) 9 (d) -16

(3) The degree of the polynomial $x^5 + 3x^3 - 7x^2 + 9x + 11$ is ....

    (a) 1 (b) 2 (c) 3 (d) 5

(4) If $x - 2$ is a factor of $3x^4 - 2x^3 + 7x^2 - 21x + k$, then the value of k is ......

    (a) 2 (b) 9 (c) 18 (d) -18

(5) The zero of $7x - 3$ is ......

    (a) $\frac{-3}{7}$ (b) $\frac{3}{7}$ (c) $\frac{7}{3}$ (d) $\frac{-7}{3}$

(6) If $x^2 + 6x + 7$ is divided by $x + 1$, then the remainder is ......

    (a) 1 (b) 2 (c) 5 (d) 7

(7) Factors of $y^2 + 10y + 21$ are ......

    (a) $(y + 3)$ and $(y - 7)$ (b) $(y - 3)$ and $(y + 7)$

    (c) $(y - 3)$ and $(y - 7)$ (d) $(y + 3)$ and $(y + 7)$

(8) If $a - b = 2$ and $ab = 3$, then $a^3 - b^3 = $ ......

    (a) 8 (b) 27 (c) 26 (d) 6

(9) If $a = b = c$ then $a^3 + b^3 + c^3 - 3abc = $ ......

    (a) a^3 (b) $2a^3$ (c) $3a^3$ (d) 0

(10) If one factor of the polynomial $x^3 + 4x^2 - 3x - 18$ is $x + 3$, then the other factor is ......

    (a) $x^2 + x$ (b) $x^2 + x + 6$ (c) $x^2 + x - 6$ (d) $x^2 - x + 6$

(11) If $(x^3 + 28)$ is divided by $(x + 3)$, then the remainder is ......

    (a) 0 (b) 1 (c) -1 (d) 2

(12) ...... should be added to $x^3 - 76$ so that the resulting polynomial is divisible by $x - 4$.

    (a) 5 (b) -5 (c) 12 (d) -12

(13) If $25x^2 - 49y^2$ has one factor $(5x - 7y)$, then the other factor is ......

    (a) $7x + 5y$ (b) $-7x - 5y$ (c) $5x + 7y$ (d) $-5x + 7y$