MATHS

BOOKS - NAVNEET PUBLICATION

DIVISION OF POLYNOMIALS

Question Bank

1. $x^3 - 2x^2 + 3x + 8$ is a polynomial. The powers or indices of the variable are 3, 2, 1 and 0 (8 means $8x^o$).

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2. $x^2 - \frac{1}{x} + 4$ is not a polynomial. $\frac{1}{x}$ means x^{-1}. The index of $\frac{1}{x}$ is -1 which is negative and not a whole number .

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3. $x^2 - 5x + 6$. The degree of the polynomial is 2.

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4. $15 - 8x^2 + 11x^3$. The degree of the polynomial is 3.

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5. $4y - 5$. The degree of the polynomial is 1.

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6. Divide $12x^3 by 4x$.

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7. Divide and write the correct terms in the boxes :

$\left(-36x^4\right) \div (-9x)$

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8. Divide and write the correct terms in the boxes :

$\left(5m^2\right) \div (-m)$

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9. Divide and write the correct terms in the boxes :

$\left(-20y^5\right) \div \left(2y^3\right)$

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10. Study the following examples :

$\left(18x^3 + 24x^2\right) \div 6x$

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11. Study the following examples :

$\left(6x^4 - 7x^3 + 5x^2 - 2x + 1\right) \div x^2$

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12. Divide. Write the quotient and the remainder :

$21m^2 \div 7m$

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13. Divide. Write the quotient and the remainder :

$40a^3 \div (-10a)$

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14. Divide. Write the quotient and the remainder :

$(-48p^4) \div (-9p^2)$

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15. Divide. Write the quotient and the remainder :

$40m^5 \div 30m^3$

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16. Divide. Write the quotient and the remainder :

$\left(5x^3 - 3x^2\right) \div x^2$

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17. Divide. Write the quotient and the remainder :

$\left(8p^3 - 4p^2\right) \div 2p^2$

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18. Divide. Write the quotient and the remainder :

$\left(2y^3 + 4y^2 + 3\right) \div 2y^2$

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19. Divide. Write the quotient and the remainder :

$$\left(21x^4 - 14x^2 + 7x\right) \div 7x^3$$

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20. Divide. Write the quotient and the remainder :

$$\left(6x^5 - 4x^4 + 8x^3 + 2x^2\right) \div 2x^2$$

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21. Divide. Write the quotient and the remainder :

$\left(25m^4 - 15m^3 + 10m + 8\right) \div 5m^3$

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22. Study the following example :

$(10x^4 - 8x^3 + 11x^2 + 4x + 3) \div (2x^2 + 1)$

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23. Divide. Write the quotient and the remainder :

$\left(y^2 + 10y + 24\right) \div (y + 4)$

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24. Divide. Write the quotient and the remainder :

$\left(p^2 + 7p - 5\right) \div (p + 3)$

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25. Divide. Write the quotient and the remainder :

$\left(3x + 2x^2 + 4x^3\right) \div (x - 4)$

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26. Divide. Write the quotient and the remainder :

$(2m^3 + m^2 + m + 9) \div (2m - 1)$

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27. Divide. Write the quotient and the remainder :

$$(3x - 3x^2 - 12 + x^4 + x^3) \div (2 + x^2)$$

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28. Divide. Write the quotient and the remainder :

$$(a^4 - a^3 + a^2 - a + 1) \div (a^3 - 2)$$

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29. Divide. Write the quotient and the remainder :

$\left(4x^4 - 5x^3 - 7x + 1\right) \div (4x - 1)$

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30. Choose the correct alternative answer for each of the following question :

$\left(18x^4 + 21x^3\right) \div 3x^2 = \ ?$

A. $6x^2$

B. 7x

C. $6x^2 + 7x$

D. $6x + 7$

Answer: C

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31. Choose the correct alternative answer for each of the following question :

$\left(-36x^4 \right) \div 4x = \ ?$

A. $9x^3$

B. $-9x^3$

C. $9x^5$

D. $-9x^5$

Answer: B

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32. Choose the correct alternative answer for each of the following question :

$\left(14x^3 - 21x^2 - 35x\right) \div (-7x)$ = ?

A. $5 + 3x - 2x^2$

B. $2x^2 - 3x - 5$

C. $-2x^2 - 3x + 5$

D. $-2x^2 + 3x - 5$

Answer: A

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33. Choose the correct alternative answer for each of the following question :

$(64y^2 - 4) \div (4y - 1)$ = ?

A. $16y - 4$

B. $16y + 4$

C. $16y + 1$

D. $16y - 1$

Answer: B

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34. Choose the correct alternative answer for each of the following question :

$\left(5x^3 - 17x^2 + 14x\right) \div (x - 2)$ = ?

A. $5x^2 - 17x + 7$

B. $5x^2 + 17x - 7$

C. $5x^2 + 7x$

D. $5x^2 - 7x$

Answer: D

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35. Divide. Write the quotient and the remainder :

$24x^4 \div 3x$

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36. Divide. Write the quotient and the remainder :

$\left(-6x^3+4x^2\right) \div 2x^2$

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37. Divide. Write the quotient and the remainder :

$\left(6x^4-18x^3-24x^2\right) \div 6x^2$

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38. Divide. Write the quotient and the remainder :

$\left(x^2+3x+9\right) \div (x-3)$

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39. Divide. Write the quotient and the remainder :

$\left(6x^2+5x-3\right) \div (2x-1)$

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40. Divide. Write the quotient and the remainder :

$\left(3x^2 + x - 5\right) \div (x + 2)$

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41. Divide. Write the quotient and the remainder :

$\left(15x^2 - 8x - 10\right) \div (5x - 1)$

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42. Divide. Write the quotient and the remainder :

$\left(m^4 - 16m^2 + 6m - 20\right) \div (m - 4)$

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43. Divide. Write the quotient and the remainder :

$\left(6x^3 - 17x^2 + 6x - 7\right) \div (2x - 3)$

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44. Divide. Write the quotient and the remainder :

$$\left(x^4+3x^3+8x^2+12x-7\right) \div \left(x^2+3\right)$$

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45. Divide. Write the quotient and the remainder :

$$\left(y^4+y^3-y^2+y-1\right) \div \left(y^3+1\right)$$

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46. Divide. Write the quotient and the remainder :

$$\left(24p^4 - 25p^3 + 6p^2 - 56p + 24\right) \div (8p - 3)$$

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47. Divide. Write the quotient and the remainder :

$$\left(x^4 + 2x^3 - 3x^2 + 4x - 5\right) \div \left(x^2 + 2\right)$$

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