

Esercitazione sulle divisioni tra polinomi

Eseguire le seguenti divisioni ed effettuare la relativa verifica.

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|---|---|--------------------|
| 1) $(3x^2 - 4x - 7):(x+1),$ | $Q(x) = 3x - 7,$ | $R = 0$ |
| 2) $(2x^2 + 5x - 7):(-x+1),$ | $Q(x) = -2x - 7,$ | $R = 0$ |
| 3) $(x^3 + 3x^2 - 54):(-x+3),$ | $Q(x) = -x^2 - 6x - 18,$ | $R = 0$ |
| 4) $(4x^3 - 5x + 8):(x+2),$ | $Q(x) = 4x^2 - 8x + 11,$ | $R = -14$ |
| 5) $(4x^2 - 8x + 5):(2x-1),$ | $Q(x) = 2x - 3,$ | $R = 2$ |
| 6) $(2x^3 - 3x + 6):(-2x+1),$ | $Q(x) = -x^2 - \frac{1}{2}x + \frac{5}{4},$ | $R = \frac{19}{4}$ |
| 7) $(x^4 + 3x^2 - x - 4):(x^2 - 2x),$ | $Q(x) = x^2 + 2x + 7,$ | $R(x) = 13x - 4$ |
| 8) $(x^4 - 2x^3 + 7x - 8):(-x^2 + x - 2),$ | $Q(x) = -x^2 + x + 3,$ | $R(x) = 6x - 2$ |
| 9) $(-6x^4 + x^3 + 2x^2 - 5):(x^2 + 2x - 1),$ | $Q(x) = -6x^2 + 13x - 30,$ | $R(x) = 73x - 35$ |
| 10) $(-3x^4 + 13x^3 - 12x^2 + 6):(3x^2 - 4x - 6),$ | $Q(x) = -x^2 + 3x - 2,$ | $R(x) = 10x - 6$ |
| 11) $\left(x^3 - \frac{7}{2}x^2 + 6x - \frac{9}{2}\right):(2x-3),$ | $Q(x) = \frac{1}{2}x^2 - x + \frac{3}{2},$ | $R = 0$ |
| 12) $\left(-5x^2 + \frac{17}{4}x - \frac{1}{4}\right):\left(2x - \frac{3}{2}\right),$ | $Q(x) = -\frac{5}{2}x + \frac{1}{4},$ | $R = \frac{1}{8}$ |
| 13) $(x^4 - 2x^2 + 1):(x^2 - 1),$ | $Q(x) = x^2 - 1,$ | $R = 0$ |
| 14) $(x^6 - 3x^4 + 2x^2 - 4):(x^2 + 2),$ | $Q(x) = x^4 - 5x^2 + 12,$ | $R = -28$ |
| 15) $(x^{10} - x^8 + x^4 + 4x^2 - 22):(x^4 - x^2 - 6),$ | $Q(x) = x^6 + 6x^2 + 7,$ | $R = 47x^2 + 20$ |
| 16) $(x^2 - 2mx - 2m^2):(x - 2m),$ | $Q(x) = x + m,$ | $R = 0$ |
| 17) $(8x^2 + 5x + 3m):(x+1),$ | $Q(x) = 8x - 3,$ | $R(x) = 3m + 3$ |
| 18) $(x^2 + mx - 2m^2):(x+2m),$ | $Q(x) = x - m,$ | $R = 0$ |
| 19) $(-3x^2 + mx - 4m + 8):(x-2),$ | $Q(x) = -3x + m - 6,$ | $R = -2m - 4$ |
| 20) $(x^2 + 2(1-2m)x - 8m):(x+2),$ | $Q(x) = x - 4m,$ | $R = 0$ |