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| 1 | $(6a^2 + 5a + 1) : (a + 1)$ | $Q(a) = 6a - 1; R = 2$ |
| 2 | $(3y^4 + 9y^3 + 5y^2 + 9y - 18) : (y + 3)$ | $Q(y) = 3y^3 + 5y - 6$ |
| 3 | $(5x^2 - 18x - 8) : (x - 4)$ | $Q(x) = 5x + 2$ |
| 4 | $(2x^3 - 3x^2 - 4x + 3) : (x - 2)$ | $Q(x) = 2x^2 + x - 2; R = -1$ |
| 5 | $(x^2 - 2x + 1) : (x - 1)$ | $Q(x) = x - 1$ |
| 6 | $(x^2 - 5x + 6) : (x - 2)$ | $Q(x) = x - 3$ |
| 7 | $(x^4 - 16) : (x^2 + 4)$ | $Q(x) = x^2 - 4$ |
| 8 | $(x^6 - 1) : (x^3 + 1)$ | $Q(x) = x^3 - 1$ |
| 9 | $(y^6 - 1) : (y^2 - 1)$ | $Q(y) = y^4 + y^2 + 1$ |
| 10 | $(6x^2 - x - 2) : (3x - 2)$ | $Q(x) = 2x + 1$ |
| 11 | $(3x^2 + 22x + 24) : (x + 6)$ | $Q(x) = 3x + 4$ |
| 12 | $(a^5 + 2a^4 - 3a^2 + a - 1) : (a + 2)$ | $Q(a) = a^4 - 3a + 7; R = -15$ |
| 13 | $(12y^3 + 23y^2 + 5y) : (4y + 1)$ | $Q(y) = 3y^2 + 5y$ |
| 14 | $(8x^3 + 2x) : (2x - 1)$ | $Q(x) = 4x^2 + 2x + 2; R = 2$ |
| 15 | $(6x^2 - 6x + 14) : (3x + 4)$ | $Q(x) = 2x - \frac{14}{3}; R = \frac{98}{3}$ |
| 16 | $(-8x^2 - 6x + 14) : (3x + 4)$ | $Q(x) = -\frac{8}{3}x + \frac{14}{9}; R = \frac{70}{9}$ |
| 17 | $\left(\frac{1}{6}x^2 + \frac{7}{8}x - \frac{3}{4}\right) : \left(\frac{2}{3}x - \frac{1}{2}\right)$ | $Q(x) = \frac{1}{4}x + \frac{3}{2}$ |
| 18 | $\left(4x^2 - \frac{5}{2}x + \frac{3}{2}x^3 - 3\right) : (2 + 3x)$ | $Q(x) = \frac{1}{2}x^2 + x - \frac{3}{2}$ |

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| 19 | $\left(-x^3 - \frac{11}{2}x^2 + 9\right) : (-2x - 3)$ | $Q(x) = \frac{1}{2}x^2 + 2x - 3$ |
| 20 | $(-2x^3 + 5bx^2 - 2b^2x) : (x - 2b)$ | $Q(x) = -2x^2 + bx$ |
| 21 | $(4x^4 + 3x^3y - 2xy^3 + y^4) : (2x + 3y)$ | $Q(x) = 2x^3 - \frac{3}{2}x^2y + \frac{9}{4}xy^2 - \frac{35}{8}y^3;$ $R = \frac{113}{8}y^4$ |
| 22 | $\left(-3x^4 + \frac{1}{9}xy^3\right) : (-3x - 2y)$ | $Q(x) = x^3 - \frac{2}{3}x^2y + \frac{4}{9}xy^2 - \frac{1}{3}y^3;$ $R = -\frac{2}{3}y^4$ |
| 23 | $\frac{3}{4}y^3 : \left(\frac{1}{2}y + 3\right)$ | $Q(y) = \frac{3}{2}y^2 - 9y + 54; R = -162$ |
| 24 | $\left(\frac{2}{3}x^3 - \frac{7}{6}a^2x + \frac{5}{2}a^3\right) : \left(x + \frac{3}{2}a\right)$ | $Q(x) = \frac{2}{3}x^2 - ax + \frac{a^2}{3}; R = 2a^3$ |
| 25 | $(a^4 + 2a^3b - 2ab^3 - b^4) : (a - b)$ | $Q(a) = a^3 + 3a^2b + 3ab^2 + b^3$ |
| 26 | $(x^4 - 2x^2y^2 - x^3y + 2y^4) : (2y - 2x)$ | $Q(x) = -\frac{1}{2}x^3 + xy^2 + y^3$ |
| 27 | $(x^3 + 2x^2) : (x^2 + x)$ | $Q(x) = x + 1$ $R(x) = -x$ |
| 28 | $(x^4 - 3x^2 + 2) : (x - 1)$ | $Q(x) = x^3 + x^2 - 2x - 2;$ $R(x) = 0$ |
| 29 | $(x^4 - 2x^3 + 3x - 5) : (x + 3)$ | $Q(x) = x^3 - 5x^2 + 15x - 42;$ $R = 121$ |
| 30 | $(x^5 - 7x^3 + 1) : (x^2 - 3)$ | $Q(x) = x^3 - 4x;$ $R(x) = -12x + 1$ |
| 31 | $(x^4 + 3x^3 - 5x + 2) : (x + 4)$ | $Q(x) = x^3 - x^2 + 4x - 21;$ $R = 86$ |
| 32 | $(2x^5 - 3x^2 + 5) : (x^2 - 2x)$ | $Q(x) = 2x^3 + 4x^2 + 8x + 13;$ $R(x) = 26x + 5$ |
| 33 | $(x^3 - 5x + 1) : (x - 3)$ | $Q(x) = x^2 + 3x + 4;$ $R = 13$ |
| 34 | $(x^6 + 2x^4 - 3x + 5) : (x + 2)$ | $Q(x) = x^5 - 2x^4 + 6x^3 - 12x^2 + 24x - 51;$ $R = 107$ |
| 35 | $(x^5 - 7x^4 + 2x^2 - 1) : (x^2 + 1)$ | $Q(x) = x^3 - 7x^2 - x + 9;$ $R(x) = x - 10$ |
| 36 | $(x^5 + 7x^4 - 2x + 3) : (x^2 - 5)$ | $Q(x) = x^3 + 7x^2 + 5x + 35;$ $R(x) = 23x + 178$ |

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| 37 | $(x^6 + 5x^4 - 3x^2 + x) : (x + 2)$ | $Q(x) = x^5 - 2x^4 + 9x^3 - 18x^2 + 33x - 65;$ $R = 130$ |
| 38 | $(x^4 + 6x^3 + 2x - 3) : (x^3 - 3)$ | $Q(x) = x + 6;$ $R(x) = 5x + 15$ |
| 39 | $(x^5 + 3x^4 - 5x^3 + 3) : \left(x + \frac{1}{2}\right)$ | $Q(x) = x^4 + \frac{5}{2}x^3 - \frac{25}{4}x^2 + \frac{25}{8}x - \frac{25}{16};$ $R = \frac{121}{32}$ |
| 40 | $(2x^3 - 7x + 1) : (x - 5)$ | $Q(x) = 2x^2 + 10x + 43;$ $R(x) = 216$ |
| 41 | $(-x^4 + x^2 - 1) : (-x + 5)$ | $Q(x) = x^3 + 5x^2 + 24 + 120;$ $R = -601$ |
| 42 | $(2x^5 - x^4 + 2x^3 - 1) : (x^2 + 2)$ | $Q(x) = 2x^3 - x^2 - 2x + 2;$ $R(x) = 4x - 5$ |
| 43 | $(x^5 - 2x^4 - 5x^3 + 17x^2 - 14x) : (x^2 - 2x)$ | $Q(x) = x^3 - 5x + 7$ $R = 0$ |
| 44 | $(x^3 - 2x^2 + 2x + 5) : (x + 1)$ | $Q(x) = x^2 - 3x + 5;$ $R = 0$ |
| 45 | $(16x^3 - 8x^2 - 11x + 6) : (4x^2 + x - 2)$ | $Q(x) = 4x - 3$ |
| 46 | $(4y^3 + 4y^2 - 19y + 6) : (2y^2 + 5y - 2)$ | $Q(y) = 2y - 3$ |
| 47 | $(8x^3 - 6x^2 - 10x - 7) : (4x^2 + 5x + 3)$ | $Q(x) = 2x - 4;$ $R(x) = 4x + 5$ |
| 48 | $(4a^3 - 6a^2 + 6a - 1) : (2a^2 + a + 4)$ | $Q(a) = 2a - 4;$ $R(a) = 2a + 15$ |
| 49 | $(3x^3 + 4x^2 + 4x + 1) : (x^2 + x + 1)$ | $Q(x) = 3x + 1$ |
| 50 | $(2x^3 - x^2 - 5x + 3) : (x^2 + x - 1)$ | $Q(x) = 2x - 3$ |
| 51 | $(4a^3 + 4a^2 + a - 2) : (2a^2 + 3a + 2)$ | $Q(a) = 2a - 1$ |
| 52 | $(12y^3 + 21y^2 + 6y - 3) : (y^2 + 2y + 1)$ | $Q(y) = 12y - 3$ |
| 53 | $(40x^3 - 66x^2 - 3x - 7) : (10x^2 + x + 1)$ | $Q(x) = 4x - 7$ |
| 54 | $(x^4 + 2x^3 + 3x^2 + 2x + 1) : (x^2 + x + 1)$ | $Q(x) = x^2 + x + 1$ |

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| 55 | $(x^4 - x^2 - 2x - 1) : (x^2 - x - 1)$ | $Q(x) = x^2 + x + 1$ |
| 56 | $(6b^4 + 2b^3 - 13b^2 + b - 8) : (2b^2 - 3)$ | $Q(b) = 3b^2 + b - 2;$ $R(b) = 4b - 14$ |
| 57 | $(x^4 + 3x^3 + x^2 + 4x + 8) : (x + 3)$ | $Q(x) = x^3 + x + 1;$ $R = 5$ |
| 58 | $\left(-\frac{x^5}{2} + \frac{5}{4}x^3 + \frac{3}{2}x - 1\right) : \left(-\frac{x^2}{2} + 1\right)$ | $Q(x) = x^3 - \frac{x}{2};$ $R(x) = 2x - 1$ |
| 59 | $(6x^3 - 2x^2 + 3x - 1) : (2x^2 + 1)$ | $Q(x) = 3x - 1$ |
| 60 | $(4x^3 - 5x + 16) : (2x^2 - 3x + 2)$ | $Q(x) = 2x + 3;$ $R = 10$ |
| 61 | $(a^4 - a - 2 + 4a^3 + 4a^2) : (a^2 + 2 + 3a)$ | $Q(a) = a^2 + a - 1$ |
| 62 | $(-2x + 3x^4 - 10x^2 + 8 + x^3) : (x^2 - 2)$ | $Q(x) = 3x^2 + x - 4$ |
| 63 | $(x + 2x^4) : (3 + x^2 - x)$ | $Q(x) = 2x^2 + 2x - 4;$ $R(x) = -9x + 12$ |
| 64 | $(3b^4) : (b^2 + b + 1)$ | $Q(b) = 3b^2 - 3b;$ $R(b) = 3b$ |
| 65 | $(2x^4 + 8x^3y + 2x^2y^2 - 2y^4) : (2x^2 - 4y^4)$ | $Q(x) = x^2 + 4xy + y^2 + 2y^4;$ $R = -2y^4 + 16xy^5 + 4y^6 + 8y^8$ |
| 66 | $(4y^4 + y^2z^2) : (2y^2 + 3yz + 2z^2)$ | $Q(y) = 2y^2 - 3yz + 3z^2;$ $R(y) = -3yz^3 - 6z^4$ |
| 67 | $(x^4 - 2x^2y^2 + 8xy^3 - 3y^4) : (x^2 + 2xy - y^2)$ | $Q(x) = x^2 - 2xy + 3y^2$ |
| 68 | $(4a^4 + 3a^3b - 2ab^3 + 4b^4) : (2a^2 - ab + b^2)$ | $Q(a) = 2a^2 + \frac{5}{2}ab + \frac{1}{4}b^2;$ $R(a) = -\frac{17}{4}ab^3 + \frac{15}{4}b^4$ |
| 69 | $(x^4 + x^2y^2 + y^4) : (x^2 - xy + y^2)$ | $Q(x) = x^2 + xy + y^2$ |
| 70 | $(-4a^3 + 19a^2b - 9b^3) : (2a - 3b)$ | $Q(a) = -2a^2 + \frac{13}{2}ab + \frac{39}{4}b^2;$ $R = \frac{81}{4}b^3$ |
| 71 | $(2xy^2 + 9x^3 + 4y^3) : (2y + 3x)$ | $Q(x) = 3x^2 - 2xy + 2y^2$ |
| 72 | $(-13a^2b^2 + a^4 + 38b^4) : (a^3 + 2a^2b - 9ab^2 - 18b^3)$ | $Q(a) = a - 2b;$ $R = 2b^4$ |

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| 73 | $(6x^4 - 4y^4 - 3xy^3 + 9x^3y + 10x^2y^2):(3x^2 - y^2)$ | $Q(x) = 2x^2 + 3xy + 4y^2$ |
| 74 | $(x^4 + 6x + 1):(x^2 + x + 3)$ | $Q(x) = x^2 - x - 2;$ $R(x) = 11x + 7$ |
| 75 | $(3x^6 - 5x^3 + 2x - 1):(x^3 - 2x^2 - 3)$ | $Q(x) = 3x^3 + 6x^2 + 12 + 28;$ $R(x) = 74x^2 + 38x + 83$ |
| 76 | $(x^3 + 2x^2 + 3x - 3):(x^2 + x - 3)$ | $Q(x) = x + 1;$ $R(x) = 5x$ |
| 77 | $(x^3 + 2x^2 + x + 6):(x^2 - x + 2)$ | $Q(x) = x + 3;$ $R(x) = 2x$ |
| 78 | $(x^3 - 3x^2 + 6x - 5):(x^2 - 2x + 1)$ | $Q(x) = x - 1;$ $R(x) = 3x - 4$ |
| 79 | $(x^4 + 2x^3 - x^2 - 3x + 3):(x^2 - 2x + 1)$ | $Q(x) = x^2 + 4x + 6;$ $R(x) = 5x - 3$ |
| 80 | $x^4:(x^2 + x + 1)$ | $Q(x) = x^2 - x;$ $R(x) = x$ |
| 81 | $(-x^5 - 2x^4 + x^3 + 5x^2 + 2x - 2):(-x^3 - x^2 + 1)$ | $Q(x) = x^2 + x - 2;$ $R(x) = 2x^2 + x$ |
| 82 | $(2x^3 + \frac{21}{10}x + \frac{9}{5}):(x^2 - \frac{1}{2}x - \frac{1}{5})$ | $Q(x) = 2x + 1;$ $R(x) = 3x + 2$ |
| 83 | $(2y^4 - y^3 - 3y^2 - 5y - 19):(2y^2 - y + 5)$ | $Q(y) = y^2 - 4;$ $R(y) = 1 - 9y$ |
| 84 | $(\frac{2}{3}x^4 - \frac{25}{36}x^3 + \frac{7}{6}x^2 - \frac{25}{48}x + \frac{3}{8}):(\frac{2}{3}x^2 - \frac{1}{4}x + \frac{1}{2})$ | $Q(x) = x^2 - \frac{2}{3}x + \frac{3}{4};$ $R = 0$ |
| 85 | $(x^2 + 2xy + y^2):(x + y)$ | $x + y$ |
| 86 | $(x^2 - y^2):(x - y)$ | $x + y$ |
| 87 | $(4x^2 - 9y^2):(2x + 3y)$ | $2x - 3y$ |
| 88 | $(x^3 + y^3 + xy^2 + x^2y + 2x^2 + 2xy):(x^2 + y^2 + 2x)$ | $x + y$ |
| 89 | $(3x^4 - 6x^3y + 2y^3 + x^3 - xy^2 - 2x^2y):(3x^3 + x^2 - y^2)$ | $x - 2y$ |
| risolvi le seguenti divisioni con la regola di Ruffini | | |
| 90 | $(3a^2 + 2a + 5):(a + 3)$ | $Q(a) = 3a - 7; R = 26$ |
| 91 | $(t^4 + 2t^3 - t + 1):(t + 1)$ | $Q(t) = t^3 + t^2 - t; R = 1$ |

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| 92 | $(3x^2 - 5x - 7):(x - 3)$ | $Q(x) = 3x + 4; R = 5$ |
| 93 | $(2x^3 - 5x^2 + 3x + 1):(x - 2)$ | $Q(x) = 2x^2 - x + 1; R = 3$ |
| 94 | $(3x^3 + 4x^2 - 4x - 7):(3x - 2)$ | $Q(x) = x^2 + 2x; R = -7$ |
| 95 | $(4a^3 + 4a^2 - 19a + 6):(2a - 3)$ | $Q(a) = 2a^2 + 5a - 2; R = 0$ |
| 96 | $(6x^3 - 2x^2 + 3x - 1):(3x - 1)$ | $Q(x) = 2x^2 + 1; R = 0$ |
| 97 | $(2x^3 + x + 1):(2x - 1)$ | $Q(x) = x^2 + \frac{1}{2}x + \frac{3}{4}; R = \frac{7}{4}$ |
| 98 | $(-4x^3 + 10x^2 - 10x + 3):(-2x + 1)$ | $Q(x) = 2x^2 - 4x + 3; R = 0$ |
| 99 | $(4a^3 + 3a^2 - 15a - 14):(4a + 7)$ | $Q(a) = a^2 - a - 2; R = 0$ |
| 100 | $(-9a^3 + a + 2):(3a - 2)$ | $Q(a) = -3a^2 - 2a - 1; R = 0$ |
| 101 | $(5x^3 - 6x^2 + x - 2):(x - 2)$ | $Q(x) = 5x^2 + 4x + 9; R = 16$ |

calcola il resto delle seguenti divisioni con la regola del resto

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| 102 | $(x^5 + 2x^4 - 3x^2 + 5x):(x + 2)$ | $R = -22$ |
| 103 | $(x^5 + 4x^4 + 3x^3 + 2x^2 + x):(x - 1)$ | $R = 11$ |
| 104 | $(x^5 + 2x^4 + 3x^3 + 4x^2 + x):(x - 1)$ | $R = 11$ |
| 105 | $(2a^6 - 4a^4 + 3a^2 - 1):(a - 1)$ | $R = 0$ |
| 106 | $(x^2 - 3xy + 2y^2):(x - 2y)$ | $R = 0$ |
| 107 | $(x^7 + x^5 + x^3 + x):(x - 1)$ | $R = 4$ |
| 108 | $(x^9 + x^8 + x^7 + x^6):(x - 1)$ | $R = 4$ |
| 109 | $(x^4 + 2x^2 + 5):(x - 2)$ | $R = 29$ |
| 110 | $(2x^3 + bx^2 - 4b^2x + 5b^3):(x + 2b)$ | $R = b^3$ |
| 111 | $(4a^3 + 4a^2 + a - 2):(2a - 1)$ | $R = 0$ |