

$$14 = 9x^6 + 6x^3y^3 + 6x^3y^3 + 4y^6(3x^3 + 2y^3) \\ 27x^9 + 18x^6y^3 + 18x^6y^3 + 12x^3y^6 + 8y^9$$

$$L = 27x^9 + 18x^6y^3 + 18x^6y^3 + 12x^3y^6 + 12x^3y^6 + 8y^9 \\ 18x^6 + 12x^3y^3 + 12x^3y^3 + 8y^9$$

$$15 = \left(\frac{2}{6}a^3 + \frac{1}{3}b^2\right)\left(\frac{2}{6}a^3 + \frac{1}{3}b^2\right) \\ \frac{4}{36}a^6 + \frac{2}{18}a^3b^2$$

$$\frac{2}{18}a^3b^2 + \frac{1}{9}b^4$$

$$9a^6 + 18a^3b^2 + \frac{1}{4}b^4$$

$$8 = C \times 10 - 10 \times 10 = (X + 2)$$

$$12 \times 10^8 + 10^8 = 8 \times 10^8 + 16 \times 10^8 - 32 \times 10^8 + 12 \times 10^8 + 12 \times 10^8 - 5 \times 10^8$$

$$\begin{array}{r} 16 \times 10^8 \\ - 16 \times 10^8 \\ \hline 0 \end{array}$$

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$$9 = C^3 - 5x - D = (x + 2)$$

$$x - 3 \times 10^8 + 10^8 = 3 \times 10^8 - 5 \times 10^8 + 10^8$$

$$\begin{array}{r} 3 \times 10^8 \\ - 5 \times 10^8 \\ \hline -2 \times 10^8 \end{array}$$

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$$R = \frac{1}{10} ab^2 - 12ab + 14c + 14cd^2$$

$$R = 3b^2 - 12ab + 14c + 14cd^2$$

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$$R = 3b^2 - 12ab + 14c + 14cd^2$$

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$$6: (x^6 + 5x^4 + 3x^2 - 2x) : (x^2 - x + 3)$$

$$\begin{array}{r} x^2 - x + 3 \overline{) x^6 + 0x^5 + 5x^4 + 0x^3 + 3x^2 - 2x + 0} \\ \underline{-x^6 + x^5 - 3x^4} \\ + x^5 - 3x^4 \end{array}$$

$$\begin{array}{r} x^5 + 2x^4 + 0x^3 \\ - x^5 + x^4 - 3x^3 \\ \hline + 3x^4 - 3x^3 \end{array}$$

$$\begin{array}{r} 3x^4 - 3x^3 + 3x^2 \\ - 3x^4 + 3x^3 - 9x^2 \\ \hline - 6x^2 - 2x + 0 \end{array}$$

$$\begin{array}{r} - 6x^2 - 2x + 0 \\ 6x^2 - 6x + 18 \\ \hline - 8x + 18 \end{array}$$

$$7) (2x^4 - 2x^3 + 3x^2 + 5x + 10) : (x + 2)$$

$$\begin{array}{r} 2x^3 - 6x^2 + 15x - 25 \\ x + 2 \overline{) 2x^4 - 2x^3 + 3x^2 + 5x + 10} \\ \underline{- 2x^4 - 4x^3} \\ - 6x^3 + 3x^2 \\ \underline{6x^3 + 12x^2} \\ 18x^2 + 5x \\ \underline{- 18x^2 + 12x} \\ - 15x + 10 \\ \underline{- 15x + 30} \\ - 20 \end{array}$$

$$\begin{array}{r} - 2x^4 - 4x^3 \\ - 6x^3 + 3x^2 \\ \hline 6x^3 + 12x^2 \end{array}$$

$$\begin{array}{r} 18x^2 + 5x \\ - 18x^2 + 12x \\ \hline - 15x + 10 \end{array}$$

$$\begin{array}{r} - 15x + 10 \\ - 15x + 30 \\ \hline - 20 \end{array}$$

60

$$4 = (x^6) \div (5x^4 + 3x^2 - 2x) \div (x^2 - x + 3)$$

$$\begin{array}{r} x^2 - x + 3 \overline{) x^6 + 0x^5 + 5x^4 + 0x^3 + 3x^2 - 2x + 0} \\ \underline{-x^6 + x^5 - 3x^4} \\ + x^5 - 8x^4 + 0x^3 + 3x^2 - 2x + 0 \end{array}$$

$$\begin{array}{r} x^5 + 2x^4 + 0x^3 \\ -x^5 + x^4 - 3x^3 \end{array}$$

$$\begin{array}{r} 3x^4 - 3x^3 + 3x^2 \\ -3x^4 + 3x^3 - 9x^2 \\ \hline -6x^2 - 2x + 0 \\ + 6x^2 - 6x + 18 \\ \hline -8x + 18 \end{array}$$

$$5 = (x^4 - 2x^3 - 11x^2 + 30x - 20) \div (x^2 + 3x - 2)$$

$$\begin{array}{r} x^2 + 3x - 2 \overline{) x^4 - 2x^3 - 11x^2 + 30x - 20} \\ \underline{-x^4 - 3x^3 + 2x^2} \\ - 5x^3 - 9x^2 + 30x \\ \underline{5x^3 + 15x^2 - 10x} \\ 6x^2 + 20x - 20 \\ \underline{-6x^2 - 18x + 12} \\ 2x - 8 \end{array}$$

$$1 = (3a^3 + 8a^2 - 4) \div (3a)$$

$$\frac{3a^3}{3a} + \frac{8a^2}{3a} - \frac{4}{3a}$$

$$\frac{3}{3}a^2 + \frac{8}{3}a^2 - \frac{4}{3}a$$

$$2 = \left(\frac{2}{3}a^2b^2 - \frac{1}{4}a^2b^4 + \frac{1}{6}ab^4 - \frac{1}{5}b^5\right) \div \left(-\frac{1}{2}ab^2\right)$$

$$\frac{\frac{2}{3}a^2b^2}{-\frac{1}{2}ab^2} - \frac{\frac{1}{4}a^2b^4}{-\frac{1}{2}ab^2} + \frac{\frac{1}{6}ab^4}{-\frac{1}{2}ab^2} - \frac{\frac{1}{5}b^5}{-\frac{1}{2}ab^2}$$

$$\frac{4}{3}ab - \frac{2}{4}ab^2 + \frac{1}{6}ab^2 - \frac{4}{5}ab^3$$

$$\frac{4a}{3} - \frac{10b}{2} + \frac{5b^2}{8} - \frac{4ab^3}{5}$$

$$3 = (x^4 - 2x^3 - 11x^2 + 30x - 20) \div (x^2 + 3x - 2)$$

$$\begin{array}{r} x^2 + 3x - 2 \overline{) x^4 - 2x^3 - 11x^2 + 30x - 20} \\ \underline{-x^4 - 3x^3 + 12x^2} \end{array}$$

$$\begin{array}{r} \overline{) -8x^3 - 9x^2 + 30x - 20} \\ \underline{8x^3 + 18x^2 - 10x} \end{array}$$

$$\begin{array}{r} \overline{) 6x^2 + 20x - 20} \\ \underline{-6x^2 - 18x + 12} \end{array}$$

$$2x - 8$$