

TC 1.4

11R

$$2) \frac{\frac{1}{10}}{\frac{5}{8}} \cdot \frac{5}{2} + \frac{\frac{9}{16}}{4} \cdot \frac{5}{2} =$$

$$\frac{1}{10} \cdot \frac{4}{5} \cdot \frac{5}{2} + \frac{9}{16} \cdot \frac{1}{4} \cdot \frac{5}{2} =$$

$$\frac{2}{5} + \frac{45}{128} = \frac{-256 + 225}{640} =$$

$$\frac{-31}{640}$$

$$5) (1-x^2)(x+2) + (x-1)(x^2+5x+6) =$$

$$x+2-x^3-2x^2+x^3+5x^2+6x-x^2-5x-6 =$$

$$2x^2+2x-4$$

$$c) (x^n + y^m)^2 = (x^n)^2 + 2x^n y^m + (y^m)^2 \\ = x^{2n} + 2x^n y^m + y^{2m}$$



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MR

$$e) 16x^4y^4 - 1 = (4x^2y^2)^2 - 1$$

$$= (4x^2y^2 + 1)(4x^2y^2 - 1)$$

$$= (4x^2y^2 + 1)((2xy)^2 - 1)$$

$$= (4x^2y^2 + 1)(2xy + 1)(2xy - 1)$$

$$f) n(n^4 - 1) = n(n^2 + 1)(n^2 - 1)$$

$$= n(n^2 + 1)(n + 1)(n - 1)$$

$$g) (1-x)^3 - (1-x) + 1 = 1 - 3x + 3x^2 - x^3 - 1 + x + 1 =$$

$$-x^3 + 3x^2 - 2x + 1$$