

$$P^{III}_{[4, 1]} = 16x^4 + 4 \times 3^{1-2m}x^4 + 4 \times 3^{-2m}x^4 - 16 \times 3^{1-2m}x^3y + 16 \times 3^{1-m}x^3y - 16 \times 3^{-2m}x^3y + \\ 16 \times 3^{-m}x^3y + 96x^2y^2 + 8 \times 3^{1-2m}x^2y^2 + 8 \times 3^{2-2m}x^2y^2 - 16 \times 3^{1-m}x^2y^2 - 16 \times 3^{2-m}x^2y^2 - 192xy^3 - \\ 16 \times 3^{1-2m}xy^3 + 16 \times 3^{1-m}xy^3 + 16 \times 3^{2-m}xy^3 - 16 \times 3^{-2m}xy^3 + 16 \times 3^mxy^3 + 16 \times 3^{1+m}xy^3 + 96y^4 + \\ 4 \times 3^{1-2m}y^4 - 16 \times 3^{1-m}y^4 + 4 \times 3^{-2m}y^4 - 16 \times 3^{-m}y^4 - 16 \times 3^my^4 + 4 \times 3^{2m}y^4 - 16 \times 3^{1+m}y^4 + 4 \times 3^{1+2m}y^4$$

$$P^{III}_{[4, 2]} = 4 \times 3^{1-2m}x^4 + 4 \times 3^{-2m}x^4 + 16x^3y - 8 \times 3^{1-2m}x^3y - 4 \times 3^{2-2m}x^3y + 4 \times 3^{1-m}x^3y + \\ 4 \times 3^{2-m}x^3y - 4 \times 3^{-2m}x^3y + 48x^2y^2 + 8 \times 3^{1-2m}x^2y^2 + 8 \times 3^{2-2m}x^2y^2 - 4 \times 3^{2-m}x^2y^2 - 4 \times 3^{3-m}x^2y^2 - \\ 96xy^3 - 8 \times 3^{1-2m}xy^3 - 4 \times 3^{2-2m}xy^3 + 4 \times 3^{2-m}xy^3 + 4 \times 3^{3-m}xy^3 - 4 \times 3^{-2m}xy^3 + 4 \times 3^mxy^3 + \\ 4 \times 3^{1+m}xy^3 + 48y^4 + 4 \times 3^{1-2m}y^4 - 4 \times 3^{1-m}y^4 - 4 \times 3^{2-m}y^4 + 4 \times 3^{-2m}y^4 - 4 \times 3^my^4 - 4 \times 3^{1+m}y^4$$

$$Q^{III}_{[4, 1, 0]} = 4 \times 3^{1-2m}x^4 + 4 \times 3^{-2m}x^4 - 16 \times 3^{1-2m}x^3y + 8 \times 3^{1-m}x^3y - 16 \times 3^{-2m}x^3y + 8 \times 3^{-m}x^3y + 32x^2y^2 + \\ 8 \times 3^{1-2m}x^2y^2 + 8 \times 3^{2-2m}x^2y^2 - 8 \times 3^{1-m}x^2y^2 - 8 \times 3^{2-m}x^2y^2 - 32xy^3 - 16 \times 3^{1-2m}xy^3 + \\ 8 \times 3^{1-m}xy^3 + 8 \times 3^{2-m}xy^3 - 16 \times 3^{-2m}xy^3 + 16y^4 + 4 \times 3^{1-2m}y^4 - 8 \times 3^{1-m}y^4 + 4 \times 3^{-2m}y^4 - 8 \times 3^{-m}y^4$$

$$Q^{III}_{[3, 1, 1]} = 16x^3 - 4 \times 3^{1-\frac{3m}{2}}x^3 - 4 \times 3^{-3m/2}x^3 + 4 \times 3^{1-\frac{3m}{2}}x^2y + 4 \times 3^{2-\frac{3m}{2}}x^2y - 4 \times 3^{1-\frac{m}{2}}x^2y - 4 \times 3^{2-\frac{m}{2}}x^2y - \\ 4 \times 3^{1-\frac{3m}{2}}xy^2 - 4 \times 3^{2-\frac{3m}{2}}xy^2 + 8 \times 3^{1-\frac{m}{2}}xy^2 + 8 \times 3^{2-\frac{m}{2}}xy^2 - 4 \times 3^{1+\frac{m}{2}}xy^2 - 4 \times 3^{2+\frac{m}{2}}xy^2 + 4 \times 3^{1-\frac{3m}{2}}y^3 - \\ 4 \times 3^{1-\frac{m}{2}}y^3 - 4 \times 3^{2-\frac{m}{2}}y^3 + 4 \times 3^{1+\frac{m}{2}}y^3 + 4 \times 3^{2+\frac{m}{2}}y^3 + 4 \times 3^{-3m/2}y^3 - 4 \times 3^{3m/2}y^3 - 4 \times 3^{1+\frac{3m}{2}}y^3$$

$$Q^{III}_{[3, 2, 1]} = -4 \times 3^{1-\frac{3m}{2}}x^3 - 4 \times 3^{-3m/2}x^3 + 16x^2y + 4 \times 3^{1-\frac{3m}{2}}x^2y + 4 \times 3^{2-\frac{3m}{2}}x^2y - 8 \times 3^{1-\frac{m}{2}}x^2y - \\ 8 \times 3^{-m/2}x^2y - 4 \times 3^{1-\frac{3m}{2}}xy^2 - 4 \times 3^{2-\frac{3m}{2}}xy^2 + 16 \times 3^{1-\frac{m}{2}}xy^2 - 4 \times 3^{1+\frac{m}{2}}xy^2 + 16 \times 3^{-m/2}xy^2 - \\ 4 \times 3^{m/2}xy^2 + 4 \times 3^{1-\frac{3m}{2}}y^3 - 8 \times 3^{1-\frac{m}{2}}y^3 + 4 \times 3^{1+\frac{m}{2}}y^3 + 4 \times 3^{-3m/2}y^3 - 8 \times 3^{-m/2}y^3 + 4 \times 3^{m/2}y^3$$

$$Q^{III}_{[2, 1, 2]} = 16x^2 + 4 \times 3^{1-m}x^2 + 4 \times 3^{-m}x^2 + 32xy - \\ 8 \times 3^{1-m}xy - 8 \times 3^{-m}xy - 32y^2 + 4 \times 3^{1-m}y^2 + 4 \times 3^{-m}y^2 + 4 \times 3^my^2 + 4 \times 3^{1+m}y^2$$

$$Q^{III}_{[2, 2, 2]} = 4 \times 3^{1-m}x^2 + 4 \times 3^{-m}x^2 + 32xy - 8 \times 3^{1-m}xy - 8 \times 3^{-m}xy - 16y^2 + 4 \times 3^{1-m}y^2 + 4 \times 3^{-m}y^2$$

$$Q^{III}_{[1, 1, 3]} = 16x - 4 \times 3^{1-\frac{m}{2}}x - 4 \times 3^{-m/2}x + 5 \times 3^{1-\frac{m}{2}}y - 5 \times 3^{1+\frac{m}{2}}y + 3^{-m/2}y - 3^{m/2}y$$

$$Q^{III}_{[5, 1, 3]} = 16x^5 - 4 \times 3^{1-\frac{5m}{2}}x^5 - 4 \times 3^{-5m/2}x^5 + 20 \times 3^{1-\frac{5m}{2}}x^4y - 20 \times 3^{1-\frac{3m}{2}}x^4y + \\ 20 \times 3^{-5m/2}x^4y - 20 \times 3^{-3m/2}x^4y - 40 \times 3^{1-\frac{5m}{2}}x^3y^2 + 80 \times 3^{1-\frac{3m}{2}}x^3y^2 - 40 \times 3^{1-\frac{m}{2}}x^3y^2 - \\ 40 \times 3^{-5m/2}x^3y^2 + 80 \times 3^{-3m/2}x^3y^2 - 40 \times 3^{-m/2}x^3y^2 + 40 \times 3^{1-\frac{5m}{2}}x^2y^3 - 40 \times 3^{1-\frac{3m}{2}}x^2y^3 - \\ 40 \times 3^{2-\frac{3m}{2}}x^2y^3 + 40 \times 3^{1-\frac{m}{2}}x^2y^3 + 40 \times 3^{2-\frac{m}{2}}x^2y^3 - 40 \times 3^{1+\frac{m}{2}}x^2y^3 + 40 \times 3^{-5m/2}x^2y^3 - \\ 40 \times 3^{m/2}x^2y^3 - 20 \times 3^{1-\frac{5m}{2}}xy^4 + 80 \times 3^{1-\frac{3m}{2}}xy^4 - 40 \times 3^{1-\frac{m}{2}}xy^4 - 40 \times 3^{2-\frac{m}{2}}xy^4 + 80 \times 3^{1+\frac{m}{2}}xy^4 - \\ 20 \times 3^{-5m/2}xy^4 + 80 \times 3^{-3m/2}xy^4 + 80 \times 3^{m/2}xy^4 - 20 \times 3^{3m/2}xy^4 - 20 \times 3^{1+\frac{3m}{2}}xy^4 + \\ 4 \times 3^{1-\frac{5m}{2}}y^5 - 20 \times 3^{1-\frac{3m}{2}}y^5 + 40 \times 3^{1-\frac{m}{2}}y^5 - 40 \times 3^{1+\frac{m}{2}}y^5 + 4 \times 3^{-5m/2}y^5 - 20 \times 3^{-3m/2}y^5 + \\ 40 \times 3^{-m/2}y^5 - 40 \times 3^{m/2}y^5 + 20 \times 3^{3m/2}y^5 - 4 \times 3^{5m/2}y^5 + 20 \times 3^{1+\frac{3m}{2}}y^5 - 4 \times 3^{1+\frac{5m}{2}}y^5$$