

$$\textcircled{2} \quad A(2) = -1, \text{ vul dit in } \rightarrow 4(2)^3 - k \cdot 2^2 + 2 \cdot 2 - 1 = -1 \rightarrow k = 9.$$

$$A\left(\frac{1}{2}\right) = \frac{3}{4}, \text{ vul dit in } \rightarrow 3 \cdot k \cdot \left(\frac{1}{2}\right)^2 - \frac{1}{2} \cdot k \cdot \frac{1}{2} + \frac{1}{4} = \frac{3}{4} \rightarrow k = 1.$$

$$\underline{10} \quad b. \quad z^3 - 8 = (z-2)(z+2z+4)$$

$$c. \quad a^3 - 8b^3 = (a-2b)(a^2+2ab+4b^2)$$

$$f. \quad 8x^3 - 27y^3 = (2x-3y)(4x^2+6xy+9y^2)$$

$$h. \quad m^7 + m = m(m^6 + 1) = m(m^2 + 1)(m^4 - m^2 + 1)$$

$$l. \quad 5p^3 + 320q^3 = 5(p+4q)(p^2-4pq+16q^2)$$

$$m. \quad 4x - 4x^2 = 4x(1-x^2) = 4x(1-x)(1+x+x^2)$$

$$o. \quad 2t^3 + 16t^6 = 2t^3(1+8t^3) = 2t^3(1+2t)(1-2t+4t^2)$$

$$s. \quad 108p^3 - 4 = 4(27p^3 - 1) = 4((3p)^3 - 1^3) = 4(9p+3p+1)(3p-1)$$

$$v. \quad 5a^2b^3 - \frac{5}{8}a^5 = 5a^2\left(b - \frac{1}{2}a\right)\left(b^2 + \frac{ab}{2} + \frac{1}{4}a^2\right).$$

$$\underline{11} \quad 2x^3 + x^2 - 22x + 20 = (x-2)(x+4)(2x-3)$$

$$x^4 - 4 = (x^2+2)(x^2-2) = (x^2+2)(x-\sqrt{2})(x+\sqrt{2})$$

$$3x^3 - x^2 - 59x - 55 = (x-1)(x-5)(3x+11).$$

$$2x^3 + 5x^2 - 4x - 39 = (x-1)(x+3)(2x+1)$$

$$8x^2 - 22x + 15 = 8\left(x - \frac{3}{2}\right)\left(x - \frac{5}{4}\right) = (2x-3)(4x-5)$$

$$-6x^2 + 13x + 5 = -6\left(x + \frac{1}{3}\right)\left(x - \frac{5}{2}\right) = -(3x+1)(2x-5)$$

$$2x^6 - 8x^5 + 8x^4 - 2x^3 + 8x^2 - 8x = 2x(x-1)(x-2)^2(x^2+x+1)$$

$$x^2 - 4x + 1 = (x-2-\sqrt{3})(x-2+\sqrt{3})$$