

$$f(x) = a x^4 + b x^3 + c x^2 + d x + k$$

$$f'(x) = 4 a x^3 + 3 b x^2 + 2 c x + d$$

$$f''(x) = 12 a x^2 + 6 b x + 2 c$$

$$f(0) = -6$$

$$f'(0) = -5$$

$$f'(2) = -17$$

$$f'(1) = 4$$

$$f''(-1) = -2$$

$$1. f(0) = -6, \text{ denn } a \cdot 0^4 + b \cdot 0^3 + c \cdot 0^2 + d \cdot 0 + k = -6$$

$$2. f'(0) = -5, \text{ denn } 4 a \cdot 0^3 + 3 b \cdot 0^2 + 2 c \cdot 0 + d = -5$$

$$3. f'(-2) = -17, \text{ denn } 4 a \cdot (-2)^3 + 3 b \cdot (-2)^2 + 2 c \cdot (-2) - 5 = -17$$

$$4. f'(1) = 4, \text{ denn } 4 a \cdot 1^3 + 3 b \cdot 1^2 + 2 c \cdot 1 - 5 = 4$$

$$5. f''(-1) = -2, \text{ denn } 12 a \cdot (-1)^2 + 6 b \cdot (-1) + 2 c = -2$$

$$\text{III } -32a + 12b - 4c - 5 = -17 \quad | +5$$

$$\text{IV } 4a + 3b + 2c - 5 = 4 \quad | +5$$

$$\text{V } 12a - 6b + 2c = -2$$

$$\text{III } -32a + 12b - 4c = -12 \quad | :(-2)$$

$$\text{IV } 4a + 3b + 2c = 9$$

$$\text{V } 12a - 6b + 2c = -2$$

$$\begin{array}{ccc|c} 16 & -6 & 2 & 6 \end{array} \quad | \cdot (-1)$$

$$\begin{array}{ccc|c} 4 & 3 & 2 & 9 \end{array}$$

$$\begin{array}{ccc|c} 12 & -6 & 2 & -2 \end{array}$$

$$\begin{array}{ccc|c} -16 & 6 & -2 & -6 \end{array}$$

$$\begin{array}{ccc|c} 4 & 3 & 2 & 9 \end{array}$$

$$\begin{array}{ccc|c} -4 & 0 & 0 & -8 \end{array}$$

$$\begin{array}{ccc|c} -16 & 6 & -2 & -6 \end{array}$$

$$\begin{array}{ccc|c} -12 & 9 & 0 & 3 \end{array}$$

$$\begin{array}{ccc|c} -4 & 0 & 0 & -8 \end{array}$$

$$\text{III } -4a = -8 \quad | :(-4)$$

$$a = 2$$

$$\text{II } -12 \cdot 2 + 9b = 3 \quad | +24$$

$$9b = 27 \quad | :9$$

$$b = 3$$

$$\text{I } -16 \cdot 2 + 6 \cdot 3 - 2c = -6 \quad | +14$$

$$-2c = 8 \quad | :(-2)$$

$$c = -4$$