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## Opgave 254

$$P1(1,6)$$

$$P2(-2,9)$$

$$P3(5,86)$$

Opstiller 3 formler

$$y = ax^2 + bx + c$$

$$6 = a \cdot 1^2 + b \cdot 1 + c$$

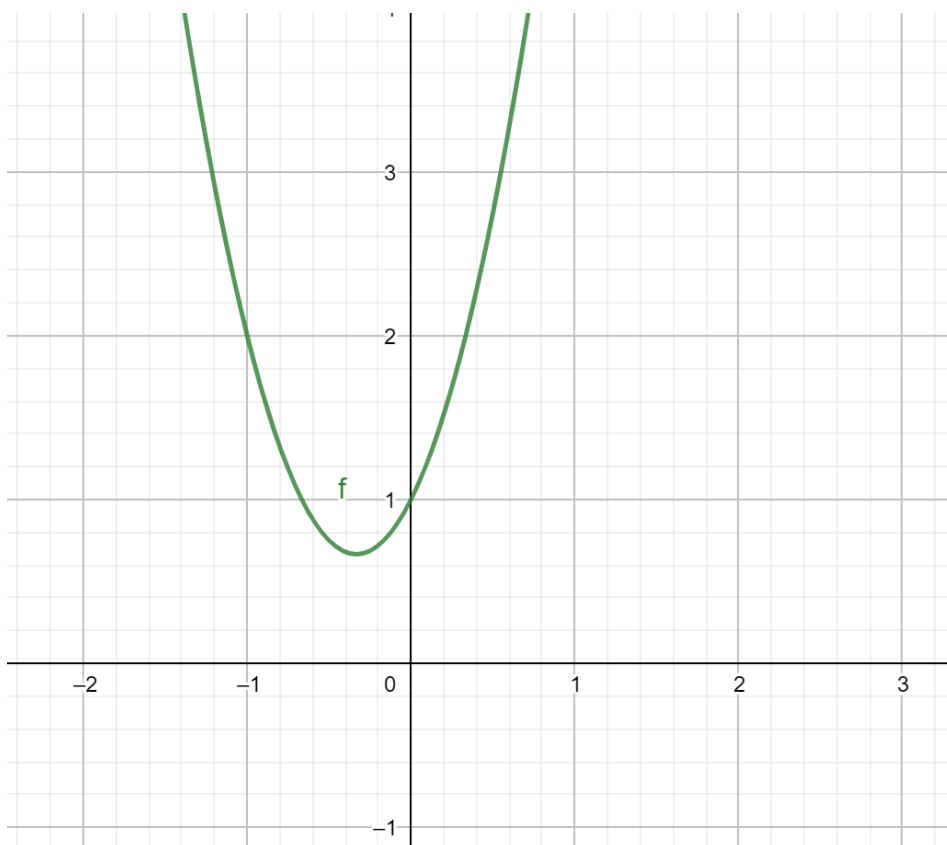
$$9 = a \cdot (-2)^2 + b \cdot (-2) + c$$

$$86 = a \cdot 5^2 + b \cdot 5 + c$$



The system of equations is solved for a,b,c by WordMat's 'solve equation' function,

$$a = 3 \quad \wedge \quad b = 2 \quad \wedge \quad c = 1$$



Nu skal vi finde den lineære funktion der skærer vores funktion i

$$P4(-1, y_1)$$

$$P5(2, y_2)$$

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$$y_1 = 3 \cdot (-1)^2 + 2 \cdot (-1) + 1 = 2$$

$$y_2 = 3 \cdot 2^2 + 2 \cdot 2 + 1 = 17$$

$$P_4(-1, 2)$$

$$P_5(2, 17)$$

$$a = \frac{y_2 - y_1}{x_2 - x_1}$$

$$a = \frac{17 - 2}{2 - (-1)}$$

$$a = 5$$

$$b = y_1 - ax_1$$

$$b = 2 - 5 \cdot (-1)$$

$$b = 7$$

$$y = 5x + 7$$

