

$$45) \frac{dy}{dx} = 2x - 1$$
$$\int dy = \int 2x - 1 dx$$
$$y = x^2 - x + C \quad (1, 1)$$

$$1 = 1 - 1 + C$$

$$C = 1$$

$$y = x^2 - x + 1$$

$$51) f''(x) = 2$$
$$f'(x) = 2x + C \quad f'(2) = 5$$
$$5 = 2 \cdot 2 + C$$
$$5 = 4 + C$$
$$C = 1$$
$$f'(x) = 2x + 1$$

$$f(x) = x^2 + x + C$$

$$10 = 2^2 + 2 + C$$