

ΘΕΜΑ Β

$$B_1) f(1) = 0 \Leftrightarrow 3 - a = 0 \Leftrightarrow a = 3$$

$$B_2) g(x) = \frac{x^2 - 3x + 2}{x^2 - 1} = \frac{(x-1)(x-2)}{(x-1)(x+1)}$$

$$\text{Π.Ο. της } g = \mathbb{R} - \{1, -1\}$$

$$B_3) \lim_{x \rightarrow 1} g(x) = \lim_{x \rightarrow 1} \frac{x-2}{x+1} = \frac{-1}{2}$$

$$B_4) f(x) = x^2 - 3x + 2 \quad f(0) = 2$$

$$f'(x) = 2x - 3$$

$$f'(0) = -3$$

$$y = \alpha x + \beta \quad \xrightarrow{\alpha = f'(0)} \quad y = -3x + \beta \quad \xrightarrow{\substack{x=0 \\ y=2}} \quad$$

$$2 = \beta$$

$$\boxed{y = -3x + 2}$$