

Exponenciální rovnice 2B2

$$2) \quad 3^{2x-1} + 3^x - 3^0 = 3^{-1}$$

$$3^{2x} \cdot 3^{-1} + 3^x - 1 - \frac{1}{3} = 0$$

substituce $u = 3^x$

$$\frac{1}{3}u^2 + u - \frac{4}{3} = 0$$

$$u^2 + 3u - 4 = 0$$

$$D = b^2 - 4ac = 9 + 16 = 25$$

$$u_{1,2} = \frac{-b \pm \sqrt{D}}{2a} = \frac{-3 \pm 5}{2}$$

$$u_1 = 1$$

$$u_2 = -4$$

$$3^x = 1$$

$$3^x = -4$$

$$3^x = 3^0$$

$$x \in \emptyset$$

$$x = 0$$

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