

Zadatak 47.

Napiši jednadžbu hiperbole koja prolazi točkom $(1, 0)$ i kojoj su pravci $x = 0$ i $y = 1$ asimptote.

Rješenje.

$$A(1, 0) \in H$$

$$a_1 \dots x = 0$$

$$a_2 \dots y = 1$$

$$\{S\} = a_1 \cap a_2 \implies S(0, 1)$$

$$H \dots (x - 0)(y - 1) = \frac{a^2}{2} \quad / \cdot 2$$

$$2x(y - 1) = a^2 \quad (1)$$

$$\{A\} \in H \implies a^2 = 2 \cdot 1(y - 0)$$

$$a^2 = -2$$

$$(1) \implies 2x(y - 1) = -2$$

$$2xy - 2x + 2 = 0 \quad / : 2$$

$$xy - x + 1 = 0$$