

Nastavni listić(Eksponencijalne jednačbe i nejednačbe)

1. Riješi jednačbe(nadopuni prazna polja):

a) $3^{x+1} = \frac{1}{81}$

$$3^{x+1} = 3$$

$$x + 1 =$$

$$x =$$

b) $(\frac{1}{2})^{3x+7} = \sqrt{\frac{1}{2}}$

$$(\frac{1}{2})^{3x+7} = (\frac{1}{2})^{-}$$

$$3x + 7 = _ \quad /.$$

$$x + =$$

c) $\sqrt[4]{0.25}^{5x+3} = \frac{1}{2}$

$$\sqrt[4]{2}^{5x+3} = 2$$

$$((2)^{\frac{1}{4}})^{5x+3} = 2$$

$$((2)^{\frac{-1}{4}})^{5x+3} = 2$$

$$(2)^{\frac{-(5x+3)}{4}} = 2$$

$$\frac{5x - 3}{4} = \quad /.$$

$$-5x - 3 =$$

$$-5x =$$

$$x = _$$

2. Riješi nejednačbe

3. $5^{x+1} \leq \frac{1}{625}$

$$5^{x+1} \leq 5$$

$$x + 1 \leq$$

$$x \leq$$

$$x \in (-\infty, \quad]$$

b) $(\frac{1}{3})^{3x+7} < \sqrt{\frac{1}{3}}$

$$(\frac{1}{3})^{3x+7} < (\frac{1}{3})^{-}$$

$$3x + 7 > _ \quad /.$$

$$x + >$$

$$x >$$

c) $\sqrt[3]{0.2}^{2x-3} > \frac{1}{5}$

$$(\sqrt[3]{5})^{2x-3} > 5$$

$$((5)^{\frac{1}{3}})^{2x-3} > 5$$

$$((5)^{\frac{-1}{3}})^{2x-3} > 5$$

$$(5)^{\frac{-(2x+3)}{3}} > 5$$

$$\frac{2x - 3}{3} > \quad /.$$

$$-2x - 3 >$$

$$-2x >$$

$$x > _$$