

1078. Rešiti jednačinu: $0.5^{x^2-20x+61.5} = \frac{8}{\sqrt{2}}$.

$$0.5^{x^2-20x+61.5} = \frac{8}{\sqrt{2}}$$

$$\left(\frac{1}{2}\right)^{x^2-20x+61.5} = \frac{2^3}{2^{\frac{1}{2}}}$$

$$(2^{-1})^{x^2-20x+61.5} = 2^{2.5}$$

$$2^{-x^2+20x-61.5} = 2^{2.5}$$

$$-x^2 + 20x - 61.5 = 2.5$$

$$x^2 - 20x + 64 = 0$$

$$x_{1,2} = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$x_{1,2} = \frac{20 \pm 12}{2}$$

$$x_1 = 4 \quad x_2 = 16$$