

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

$$x^2 + |x| - 2 = 0$$

$$|x|^2 + |x| - 2 = 0$$

$$t = |x|$$

$$t^2 + t - 2 = 0$$

$$t_1 = -2$$

$$t_2 = 1$$

$$|x| = -2 \text{ (нет решения)}$$

$$|x| = 1$$

$$x = 1$$

$$x = -1$$

Отв: 1; -1

$$1) x^2 + (\sqrt{x})^2 - 2 = 0 \quad x \geq 0$$

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

$$x_1 = -2 \text{ (не подходит)}$$

$$x = 1$$

Отв: 1

$$\sqrt{x^2} = |x|$$
$$\sqrt{x^2} = x$$
$$x \geq 0$$

