

$$\sin x = \sqrt{3}/2$$
$$x = \pi/3 + 2\pi k$$
$$x = 2\pi/3 + 2\pi k$$

$$\cos x = -1/2$$
$$x = \pm 2\pi/3 + 2\pi k$$

$$\sin x = 2$$

нет решений

$$\cos x = 1/5$$
$$x = \pm \arccos(1/5) + 2\pi k$$

$$\sin x = -1$$
$$x = 3\pi/2 + 2\pi k$$

$$\sin x = -2/5$$
$$x = \arcsin(-2/5) + 2\pi k$$
$$x = \pi - \arcsin(-2/5) + 2\pi k$$

$$\operatorname{tg} x = 100$$
$$x = \operatorname{arctg}(100) + \pi k$$

$$\operatorname{ctg} x = -\sqrt{3}$$
$$x = 5\pi/6 + \pi k$$

$$\operatorname{ctg} x = 1$$
$$x = \pi/4 + \pi k$$

