

0.21
k3

$$\sqrt[3]{x+6} + \sqrt[3]{3-x} = 3 \quad | ()^3$$

$$x+6 + 3\sqrt[3]{(x+6)^2(3-x)} + 3\sqrt[3]{(x+6)(3-x)^2} + 3-x = 27$$

$$3\sqrt[3]{(x+6)(3-x)} \left(\underbrace{\sqrt[3]{x+6} + \sqrt[3]{3-x}}_3 \right) = 18 \quad | :9$$

$$\sqrt[3]{(x+6)(3-x)} = 2 \quad | ()^3$$

$$-x^2 - 3x + 18 = 8$$

$$x^2 + 3x - 10 = 0$$

$$\boxed{x = -5, +2}$$