

$$1. R_{1,2} = R_1 + R_2$$

$$2. R_{3,9} = R_3 + R_9$$

$$3. R_{1,2,3,9} = \frac{R_{1,2} \times R_{3,9}}{R_{1,2} + R_{3,9}}$$

$$4. R_{5,6} = \frac{R_5 \times R_6}{R_5 + R_6}$$

$$5. R_{\text{экв.}} = R_8 + R_{1,2,3,9} + R_4 + R_{5,6} + R_7$$

Подставляем значения:

$$1. R_{1,2} = 1000 + 1000 = 2000$$

$$2. R_{3,9} = 500 + 500 = 1000$$

$$3. R_{1,2,3,9} = \frac{2000 \times 1000}{2000 + 1000} = \frac{2000000}{3000} = \frac{2000}{3} \approx 666.67$$

$$4. R_{5,6} = \frac{2000 \times 2000}{2000 + 2000} = \frac{4000000}{4000} = 1000$$

$$5. R_{\text{экв.}} \approx 800 + 666.67 + 3000 + 1000 + 900 \approx 6366.67 \approx 6.4 k\Omega$$