

Produkte u. Quotienten v. Quadratwurzeln

Lösungsblatt

x	y	$\sqrt{x \cdot y}$	$\sqrt{x} \cdot \sqrt{y}$
9	16	$\sqrt{9 \cdot 16} = \sqrt{144} = 12$	$\sqrt{9} \cdot \sqrt{16} = 3 \cdot 4 = 12$
1	4	$\sqrt{1 \cdot 4} = \sqrt{4} = 2$	$\sqrt{1} \cdot \sqrt{4} = 1 \cdot 2 = 2$
4	36	$\sqrt{4 \cdot 36} = \sqrt{144} = 12$	$\sqrt{4} \cdot \sqrt{36} = 2 \cdot 6 = 12$
16	25	$\sqrt{16 \cdot 25} = \sqrt{400} = 20$	$\sqrt{16} \cdot \sqrt{25} = 4 \cdot 5 = 20$
9	64	$\sqrt{9 \cdot 64} = \sqrt{576} = 24$	$\sqrt{9} \cdot \sqrt{64} = 3 \cdot 8 = 24$
49	100	$\sqrt{49 \cdot 100} = \sqrt{4900} = 70$	$\sqrt{49} \cdot \sqrt{100} = 7 \cdot 10 = 70$

$$\sqrt{4 \cdot 25} = \sqrt{100} = 10$$

$$\sqrt{4} \cdot \sqrt{25} = 2 \cdot 5 = 10$$

$$\sqrt{9 \cdot 49} = \sqrt{441} = 21$$

$$\sqrt{9} \cdot \sqrt{49} = 3 \cdot 7 = 21$$

x	y	$\sqrt{\frac{x}{y}}$	$\frac{\sqrt{x}}{\sqrt{y}}$
9	16	$\sqrt{\frac{9}{16}} = \sqrt{\frac{3 \cdot 3}{4 \cdot 4}} = \frac{3}{4}$	$\frac{\sqrt{9}}{\sqrt{16}} = \frac{\sqrt{3 \cdot 3}}{\sqrt{4 \cdot 4}} = \frac{3}{4}$
1	4	$\sqrt{\frac{1}{4}} = \sqrt{\frac{1 \cdot 1}{2 \cdot 2}} = \frac{1}{2}$	$\frac{\sqrt{1}}{\sqrt{4}} = \frac{\sqrt{1 \cdot 1}}{\sqrt{2 \cdot 2}} = \frac{1}{2}$
4	36	$\sqrt{\frac{4}{36}} = \sqrt{\frac{2 \cdot 2}{6 \cdot 6}} = \frac{2}{6}$	$\frac{\sqrt{4}}{\sqrt{36}} = \frac{\sqrt{2 \cdot 2}}{\sqrt{6 \cdot 6}} = \frac{2}{6}$
16	25	$\sqrt{\frac{16}{25}} = \sqrt{\frac{4 \cdot 4}{5 \cdot 5}} = \frac{4}{5}$	$\frac{\sqrt{16}}{\sqrt{25}} = \frac{\sqrt{4 \cdot 4}}{\sqrt{5 \cdot 5}} = \frac{4}{5}$
9	64	$\sqrt{\frac{9}{64}} = \sqrt{\frac{3 \cdot 3}{8 \cdot 8}} = \frac{3}{8}$	$\frac{\sqrt{9}}{\sqrt{64}} = \frac{\sqrt{3 \cdot 3}}{\sqrt{8 \cdot 8}} = \frac{3}{8}$
49	100	$\sqrt{\frac{49}{100}} = \sqrt{\frac{7 \cdot 7}{10 \cdot 10}} = \frac{7}{10}$	$\frac{\sqrt{49}}{\sqrt{100}} = \frac{\sqrt{7 \cdot 7}}{\sqrt{10 \cdot 10}} = \frac{7}{10}$

$$\sqrt{\frac{16}{49}} = \sqrt{\frac{4 \cdot 4}{7 \cdot 7}} = \frac{4}{7}$$

$$\sqrt{\frac{100}{121}} = \sqrt{\frac{10 \cdot 10}{11 \cdot 11}} = \frac{10}{11}$$