

$$\bullet \quad 6 < \sqrt{45} < 7.$$

$$\bullet \quad \sqrt{\frac{70}{7}} = \sqrt{10}$$

$$\sqrt{\frac{100}{36}} = \sqrt{\frac{25}{9}} = \frac{5}{3}$$

$$\Rightarrow \frac{5}{3} \sqrt{10}$$

$$\bullet \quad \sqrt{g^6 \times g^2} = \sqrt{g^8} = \underline{g^4}$$

$$\bullet \quad 10 \sqrt{100} = 10 \times 10$$

$$= 100$$

$$\begin{aligned}
 & \cdot 25 \times 11 + 15\sqrt{55} \\
 & + 25\sqrt{55} + 15 \times 5 \\
 & = 350 + 40\sqrt{55}
 \end{aligned}$$

$$\cdot 10$$

$$\begin{aligned}
 & \cdot 15 \times 11 + 15\sqrt{11} + 15\sqrt{11} \\
 & \quad \quad \quad + 15 \\
 & = 180 + 30\sqrt{11}
 \end{aligned}$$

$$\bullet \quad 8 \sqrt{275} + \sqrt{176}$$

$$= 40 \sqrt{11} + 4 \sqrt{11}$$

$$= 44 \sqrt{11}$$

$$\bullet \quad \sqrt{20} \approx 4,5$$

$$\bullet \quad 14 + 6\sqrt{5}$$

$$\bullet \quad \sqrt{\sqrt{2^{16}}} = \sqrt{2^{16/2}} = \sqrt{2^8} = 2^{8/2} = 2^4$$

• $3 - \sqrt{6}$

• $8 + 5\sqrt{2}$

• $\pm$

• $49\sqrt{40}$

$= 98\sqrt{10}$

$= \frac{3 \times 11}{\sqrt{11}} = 3\sqrt{11}$

• $25 \times 2 = 50$

$$\bullet \quad \frac{2}{11} \sqrt{13} + \frac{5}{2} \sqrt{13}$$

$$= \frac{4 + 55}{22} \sqrt{13}$$

$$= \boxed{\frac{59}{22} \cdot \sqrt{13}}$$

$$\bullet \quad 9,584 = 9\,584 \times 10^{-3} \times 10^{-8}$$

$$= \boxed{\frac{9\,584}{10^{11}}}$$

$$\bullet \quad -2\sqrt{5} - 2 \times 5\sqrt{5}$$

$$= \boxed{-12\sqrt{5}}$$

$$\bullet 11\sqrt{7} - 9\sqrt{10} - 7\sqrt{7} + 5\sqrt{10}$$

$$= 4\sqrt{7} - 4\sqrt{10}$$

$$\bullet \sqrt{2}$$

$$\bullet (\sqrt{3} - 2)^2 = 3 - 4\sqrt{3} + 4$$

$$= 7 - 4\sqrt{3}$$

$$\bullet \quad \frac{1}{2} + \frac{3}{2} \times 5$$

$$= \frac{1}{2} + \frac{15}{2}$$

$$= \frac{16}{2} = \boxed{8}$$

$$\bullet \quad 16 \times 2 - 40\sqrt{2} + 25$$

$$= \boxed{57 - 40\sqrt{2}}$$

$$\bullet \quad \frac{\sqrt{47}}{\sqrt{121}} = \boxed{\frac{2}{11}}$$

$$\bullet \quad 2 + 8\sqrt{2} + 16$$

$$= 18 + 8\sqrt{2}$$

$$\bullet \quad \sqrt{\sqrt{16}} = \sqrt{4} = 2.$$

$$\bullet \quad 7 \times 7^2 = 343$$

$$\bullet \quad (\sqrt{3}x - 8) \left(-9x + 8\sqrt{2} + 7x + 2\sqrt{2} \right)$$

$$\bullet \quad (\sqrt{3}x - 8) (-2x + 10\sqrt{2})$$

$$= -2(x\sqrt{3} - 8)(-x + 5\sqrt{2})$$

$$= -11\sqrt{6}.$$