Square-root operations: factor, multiply and combine — Further practice

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Further practice 11

Simplify exactly. State any restriction that is needed.

$$2\sqrt{18}-\sqrt{8}$$

Further practice 12

Simplify exactly. State any restriction that is needed.

$$\sqrt{\frac{3}{4}}$$

Further practice 13

Simplify exactly. State any restriction that is needed.

$$(-2\sqrt{3})(3\sqrt{12})$$

Further practice 14

Simplify exactly. State any restriction that is needed.

$$\sqrt{2}+\sqrt{3}$$

Extension 15

Simplify exactly. State any restriction that is needed.

$$(\sqrt{3}+\sqrt{2})^2$$

Extension 16

Compare this value with $\sqrt{9}+\sqrt{16}$ to test whether square roots distribute over addition.

$$\sqrt{9+16}$$