

1. $\frac{14g^2h}{\sqrt{8g^7h^{11}}}$

2. $\frac{30j^4k}{\sqrt[4]{5j^7k^{17}h^{26}}}$

Simplify each.

3. $\sqrt{125} - 6\sqrt{80} + 2\sqrt{45}$

4. $7\sqrt{2}(8\sqrt{6} - 3\sqrt{2})$

5. $(9 + \sqrt{5})(2 - \sqrt{5})$

6. $(\sqrt{3} - 7)(4 + \sqrt{6})$

1. $\frac{14g^2h}{\sqrt{8g^7h^{11}}} \cdot \frac{\sqrt{2gh}}{\sqrt{2gh}}$

$= \frac{14g^2h\sqrt{2gh}}{\sqrt{16g^8h^{12}}} = \frac{14g^2h\sqrt{2gh}}{4g^4h^6} = \frac{7\sqrt{2gh}}{2g^2h^5}$

Simplify each.

3. $\sqrt{125} - 6\sqrt{80} + 2\sqrt{45}$
 $= 5\sqrt{5} - 24\sqrt{5} + 6\sqrt{5}$
 $= -13\sqrt{5}$

4. $7\sqrt{2}(8\sqrt{6} - 3\sqrt{2})$

$= 56\sqrt{12} - 21 \cdot 2$
 $= 112\sqrt{3} - 42$

5. $(9 + \sqrt{5})(2 - \sqrt{5})$

$\begin{array}{|c|c|} \hline 18 & -9\sqrt{5} \\ \hline 2\sqrt{5} & -5 \\ \hline \end{array} = 13 - 7\sqrt{5}$

6. $(\sqrt{3} - 7)(4 + \sqrt{6})$

$\begin{array}{|c|c|} \hline 4\sqrt{3} & +\sqrt{18} \\ \hline -28 & -7\sqrt{6} \\ \hline \end{array} = 4\sqrt{3} + 3\sqrt{2} - 28 - 7\sqrt{6}$

2. $\frac{30j^4k}{\sqrt[4]{5j^7k^{17}h^{26}}} \cdot \frac{\sqrt[4]{5^3j^3k^3h^2}}{\sqrt[4]{5^3j^3k^3h^2}}$

$= \frac{30j^4k\sqrt[4]{5^3j^3k^3h^2}}{\sqrt[4]{5^4 \cdot 8k^{20}h^{28}}} = \frac{30j^4k\sqrt[4]{5^3j^3k^3h^2}}{5j^2k^5h^7} = \frac{6j^2\sqrt[4]{5^3j^3k^3h^2}}{k^4h^7}$