

Simplify. $7 \cdot \sqrt{3} \cdot 5 \cdot \sqrt{2}$

$$\begin{array}{c} 7 \cdot 5 \cdot \sqrt{3} \cdot \sqrt{2} \\ \swarrow \quad \searrow \\ \boxed{35\sqrt{6}} \end{array}$$

Simplify.

$$\begin{array}{c} \sqrt{15g^7h^{14}} \cdot \sqrt{39g^6h^{-3}} \\ \uparrow \quad \quad \uparrow \\ 3 \cdot 5 \quad 3 \cdot 13 \\ \hline \sqrt{3^2 \cdot 5 \cdot 13 g^{13} h^{11}} \\ = \boxed{3g^6h^5\sqrt{65gh}} \end{array}$$

$$\begin{array}{c} 585 \\ \wedge \\ 9 \cdot 65 \end{array}$$

Simplify.

$$\begin{array}{c} \boxed{2\sqrt{5}}(6\sqrt{2} - 3\sqrt{5}) \\ 12\sqrt{10} - 6 \cdot 5 \\ \boxed{12\sqrt{10} - 30} \end{array}$$

Simplify.

$$(5 + \sqrt{6})(2 - \sqrt{6})$$

	5	$+\sqrt{6}$	
2	10	$2\sqrt{6}$	
$-\sqrt{6}$	$-5\sqrt{6}$	-6	

$-\sqrt{6} \cdot \sqrt{6} = -6$

$$= \boxed{4 - 3\sqrt{6}}$$

Simplify. $(8 - 3\sqrt{5})(4 + 2\sqrt{5})$

$$\begin{array}{r|rr} & 8 & -3\sqrt{5} \\ 4 & 32 & -12\sqrt{5} \\ \hline 2\sqrt{5} & 16\sqrt{5} & -30 \end{array} = 2 + 4\sqrt{5}$$

$\uparrow$
 $-6 \cdot 5$