Surds Revision

(a)	(b)	(c)	(d)
Write $\sqrt{108}$ in the form $k\sqrt{3}$ $6\sqrt{3}$	Write $\sqrt{45}+\sqrt{20}$ in the form $k\sqrt{5}$ $5\sqrt{5}$	Write $\sqrt{96}-\sqrt{24}$ in the form $k\sqrt{6}$ $2\sqrt{6}$	Expand $\sqrt{2}(5+\sqrt{8})$ $5\sqrt{2}+4$
(e)	**(f)**	**(g)**	**(h)**
Expand and simplify $(7+\sqrt{3})(4-\sqrt{3})$ $25-3\sqrt{3}$	Expand and simplify $(5+2\sqrt{2})(6-\sqrt{2})$ $26+7\sqrt{2}$	Expand and simplify $(5+3\sqrt{2})^2$ $43+30\sqrt{2}$	Rationalise the denominator and simplify fully $\frac{15}{\sqrt{18}}$ $\frac{5\sqrt{2}}{2}$
(i)	**(j)**	**(k)**	**(l)**
Rationalise the denominator and simplify fully $\frac{5+4\sqrt{3}}{\sqrt{3}}$ $\frac{5\sqrt{3}}{3}+4$	Express $\frac{\sqrt{3}+\sqrt{27}}{\sqrt{2}}$ as a single surd. $\sqrt{24}$	Rationalise the denominator and simplify fully $\frac{\sqrt{3}+5}{2-\sqrt{3}}$ $13+7\sqrt{3}$	$(4+\sqrt{a})(7-\sqrt{a})=23+k\sqrt{a}$ Find the values of the positive integers a and k. $a=5, k=3$