$1\frac{2}{3}$

is an integer multiple of the other from which equality follows (since that integer can only be 1)
For $\text{hcf}\{h^2k^2, h^2l^2\} = h^2\,\text{hcf}\{k^2, l^2\}$ the proof is virtually identical. and $\text{hcf}\{k^2, l^2\} = 1$ is shown in the 'alternative' proof.

$\frac{20}{25}$

I'm sorry, Paul, but I can't <u>read</u> your proof.

You have taken a complicated line (using prime decomposition) which I do think can work but you would need to lay it all out <u>very</u> clearly for me to be convinced.

I enclose a proof using Lemma 5.1