1. $\prod_{sname}^{\square}\left(\left(\left(\sigma_{\text{color = red}}\text{Parts}\right) \bowtie \text{Cata}log\right) \bowtie \text{Suppliers}\right)$

2. $\prod_{sid}^{\square}\left[\left\{\left(\left(\sigma_{\text{color = red}}\text{Parts}\right) \cup \left(\sigma_{\text{color = }green}\text{Parts}\right)\right) \bowtie Catalog\right\} \bowtie \text{Suppliers}\right]$

3. $\prod_{sid}^{\square}\left(\left(\left(\sigma_{\text{color = red}}\text{Parts}\right) \bowtie Catalog\right) \cup \left(\sigma_{address\,=\,221\,.\,Packer\,.\,Street}\,Suppliers\right)\right)$

4. $\prod_{\text{sid}}^{\square}\left(\prod_{sid}^{\square}\left(\left(\sigma_{\text{color = red}}\text{Parts}\right) \bowtie Catalog\right)\right) \cap \left(\prod_{sid}^{\square}\left(\left(\sigma_{\text{color = }green}\text{Parts}\right) \bowtie Catalog\right)\right)$

5. $\prod_{\text{sid}}^{\square}\left(Catalog \div \left(\prod_{\text{pid}}^{\square}(\text{Parts})\right)\right)$

6. $\prod_{\text{sid}}^{\square}\left(Catalog \div \left(\prod_{\text{pid}}^{\square}\left(\sigma_{\text{color = red}}\text{Parts}\right)\right)\right)$

7. $\prod_{\text{sid}}^{\square}\left(Catalog \div \left(\prod_{\text{pid}}^{\square}\left(\left(\sigma_{\text{color = red}}\text{Parts}\right) \cup \left(\sigma_{\text{color = green}}\text{Parts}\right)\right)\right)\right)$

8. $\prod_{\text{sid}}^{\square}\left(\left(Catalog \div \left(\prod_{\text{pid}}^{\square}\left(\sigma_{\text{color = red}}\text{Parts}\right)\right)\right) \cup \left(Catalog \div \left(\prod_{\text{pid}}^{\square}\left(\sigma_{\text{color = }green}\text{Parts}\right)\right)\right)\right)$

9. $\prod_{R1\,.\,sid,\ R2\,.\,sid}^{\square}\left(\sigma_{(R1\,.\,pid\,=\,R2\,.\,pid)\,\cap\,(R1\,.\,sid!\,=\,R2\,.\,sid)\,\cap\,(R1\,.\,cost\,>\,R2\,.\,cost)}\,(R1 \times R2)\right)$

10. $\prod_{R1\,.\,pid}^{\square}\left(\sigma_{(R1\,.\,pid\,=\,R2\,.\,pid)\,\cap\,(R1\,.\,sid!\,=\,R2\,.\,sid)}\,(R1 \times R2)\right)$