Ex1

1) $\prod_{sname}(\prod_{sid}((\prod_{pid}\sigma_{color='red'}Parts)\bowtie Catalog)\bowtie Suppliers$

2) $\prod_{sid}(\prod_{pid}(\sigma_{color='red'\vee color='green'}Parts)\bowtie Catalog)$

3) $(\prod_{sid}((\prod_{pid}\sigma_{color='red'}Parts)\bowtie Catalog)\cup$
$(\prod_{sid}\sigma_{address=221PackerStreet}Suppliers)$

4) $(\prod_{sid}((\prod_{pid}\sigma_{color='red'}Parts)\bowtie Catalog)\cup$
$(\prod_{sid}((\prod_{pid}\sigma_{color='green'}Parts)\bowtie Catalog)$

5) $(\prod_{sid,pid}Catalog)/(\prod_{pid}Parts)$

6) $(\prod_{sid,pid}Catalog)/(\prod_{pid}\sigma_{color='red'}Parts)$

7) $(\prod_{sid,pid}Catalog)/(\prod_{pid}\sigma_{color='red'\vee color='green'}Parts)$

8) $((\prod_{sid,pid}Catalog)(\prod_{pid}\sigma_{color='red'}Parts))\cup$
$((\prod_{sid,pid}Catalog)(\prod_{pid}\sigma_{color='green'}Parts)$

9) $p(R1,Catalor),p(R2,Catalog)$
$\prod_{R1.sid,R2.sid}(\sigma_{R1.pid=R2.pid\wedge R1.sid!=R2.sid\wedge R1.cost>R2.cost}(R1*R2))$

10) $p(R1,Catalog),p(R2,Catalog)$
$\prod_{R1.pid}\sigma_{R1.pid=R2.pid\wedge R1.sid!=R2.sid}(R1*R2)$

11) $p(R1,Catalog\bowtie\prod_{sid}\sigma_{sname='YosemiteSham'}Suppliers)$
$p(R2,\sigma_{R1.cost<R1.cost}(R1*R1))$
$\prod_{pid}(R1-\prod_{sid,pid,cost}R2)$