R		
A	В	С
1	1	2
1	1	2
1	2	3
1	$\begin{array}{c} 2 \\ 2 \\ 2 \end{array}$	3
1	2	3
1	4	1
1	5	1

D
2
2
1
1
6
2

Consider the relations R and S shown above. Let $\pi^*, \sigma^*, \cup^*, \cap^*, -^*, \times^*$ denote the bag semantic versions of the relational algebra (RA) operators. Compute the results of the following RA queries.

- 1. $(\pi_C(R)) \cap (\pi_C(S))$
- 2. $(\pi_C^*(R)) \cap (\pi_C^*(S))$
- 3. $\delta(\pi_C^*(R))$
- 4. $\gamma_{B,C,COUNT(B,C)\to E}(R)$
- 5. $\tau_D(S)$
- 6. $\pi_{A \to F, B^2 + C \to G}^*(R)$
- 7. $R \overset{\circ}{\bowtie}_L S$
- 8. $R \stackrel{\circ}{\bowtie}_R S$