R

A	B	C
1	1	2
1	1	2
1	2	3
1	2	3
1	2	3
1	4	1
1	5	1

S

C	D
4	2
4	2
2	1
2	1
2	6
3	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. $\gamma_{B,C,\text{COUNT}(B,C)\to E}(R)$

5. $\tau_D(S)$

6. $\pi_{A\to F, B^2+C\to G}^*(R)$

7. $R \overset{\circ}{\bowtie}_L S$

8. $R \overset{\circ}{\bowtie}_R S$