 # Question 1

$$\pi rname\left(\sigma territory =' EMEA' \left(reps\right)\right)$$

 # Question 2

$$\pi rname\left(\sigma amount < 10000 \wedge year = 2023\left(reps \bowtie reps.rid = earnings.rid\, earnings\right)\right)$$

 # Question 3

$$|\pi sid\left(\sigma major =' CS' \wedge score\, 94.51\left(Enrollments \bowtie Sections.sid = Enrollments.sid\left(\sigma credi\right.\right.$$

 # Question 4

$$\gamma college, COUNT(cid)\left(\sigma hours < 4\left(Courses\right)\right)$$

 # Question 5

$$|\pi sid\left(\sigma term =' Fall2023' \left(Enrollment \bowtie Sections\right)\right)|$$

 # Question 6

$$\pi sname\left(\sigma college =' Khoury' \wedge onCoop = True \wedge \left(3.0 \leq gpa \leq 3.4\right)\left(Students\right)\right)$$

 # Question 7

$$cname \mid \exists cid, credits(Courses(cid, cname, credits) \wedge credits \geq 3)$$

 # Question 8

$$t \mid \exists cid, cname, hours(Courses(cid, cname, hours) \wedge t = (cid, cname, hours) \wedge hours \leq 4)$$

 # Question 9

$$\pi year, sum(amount)\left(\sigma territory <>' EMEA' \left(reps \bowtie earnings\right)\right)$$

 # Question 10

```
SELECT year, amount
FROM (
    SELECT *
    FROM reps
    JOIN earnings ON reps.rid = earnings.rid
    WHERE amount < 50000)
```

```
AS x
```