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ANSWERS:

A:

```
SELECT count(*) as building_count
FROM Building, Hasshape
WHERE Hasshape.id=Building.id and
ST_Within(ST_MakePoint(59.341359,18.0821843),ST_asText(Hasshape.shape));
```

B:

```
SELECT i2.name as restaurant_names
FROM IsNamed i1, IsNamed i2, HasCoordinates h1, HasCoordinates h2, Building,
Restaurant
WHERE i1.name= 'E'
and i1.id=Building.id
and i2.id=Restaurant.id
and i1.id=h1.id
and i2.id=h2.id
and (dtom(ST_Distance(h1.coordinates,h2.coordinates))<700);
```

C:

```
SELECT distinct(i2.name) as street_names
FROM IsNamed i1, IsNamed i2,HasShape h1, HasShape h2, Street
WHERE i1.name= 'Odengatan'
and i1.id=h1.id
and i2.id=h2.id
and i2.id=Street.id
and ST_Crosses(h1.shape,h2.shape);
```

D:

```
Rule Query:
CREATE OR REPLACE RULE ruleD
AS ON INSERT TO Hasposition
DO ALSO
```

```
(SELECT 'Cafe '||Isnamed.name|| ' within distance ' ||
dtom(ST_Distance(Hasposition.position,h1.coordinates)) as cafe_distance
FROM Hasposition, Hascoordinates h1,Hascoordinates h2, Isnamed, Cafe
WHERE Cafe.id=h1.id
and Cafe.id=Isnamed.id
and Hasposition.person=h2.id
and ST_Dwithin(Hasposition.position,h1.coordinates,mtod(50)));
```

View Query:
```
CREATE VIEW cafe_user_distance AS
(SELECT Isnamed.name as
cafe_name,dtom(ST_Distance(Hasposition.position,Hascoordinates.coordinates)) as
cafe_distance
FROM Hasposition, Hascoordinates, Isnamed, Cafe
WHERE Cafe.id=Hascoordinates.id
and Cafe.id=Isnamed.id
and ST_Dwithin(Hasposition.position,Hascoordinates.coordinates,mtod(50))
order by cafe_distance desc);
```

```
SELECT 'Cafe '|| cafe_name || ' within distance ' || cafe_distance as cafe_results
FROM cafe_user_distance;
```

E:

```
SELECT SUM(dtom(ST_Distance(h1.position,
(SELECT MAX(h2.position)
FROM hasposition h2
WHERE h2.time = ( SELECT MIN(h3.time)
FROM hasposition h3 where h3.time>h1.time)))))
AS pedestrian_distance FROM hasposition h1;
```

F:

```
SELECT distinct(street.id) as street_ids
FROM HasShape,hasposition,isnamed,street,person,Hascoordinates
WHERE
street.id=HasShape.id
and street.id=Hascoordinates.id
and hasposition.person=person.id
and ST_DWithin(HasShape.shape,hasposition.position,mtod(15));
```

G:

```sql
SELECT Isnamed.name as
building_name,dtom(ST_Distance(Hasposition.position,Hascoordinates.coordinates))
as building_distance
FROM Hasposition, Hascoordinates, Isnamed, Building
WHERE Building.id=Hascoordinates.id
and Building.id=Isnamed.id
and Isnamed.name='F'
and ST_Dwithin(Hasposition.position,Hascoordinates.coordinates,mtod(100))
order by building_distance asc;
```