To solve for point B using distances of 10 km and 7 km in PostgreSQL, especially if you're working with the PostGIS extension (which adds spatial capabilities to PostgreSQL), you can follow these steps:

1. **Understand the problem context:**
   - Are you given two points and want to find point B at certain distances?
   - Or are you trying to solve some sort of triangulation problem?
2. **Assuming you have a starting point A and want to find B at 10 km or 7 km away:**
   - PostGIS stores geometries, often using latitude and longitude.
   - You can create points using `ST_MakePoint(lon, lat)`
   - Use `ST_Transform` to convert between coordinate systems suitable for distance calculations (e.g., to use a projected coordinate system in meters).
3. **Example: Find a point B at 10 km east of point A:**

```
-- Let's say point A is at longitude = 0, latitude = 0
SELECT
  ST_AsText(
    ST_Transform(
      ST_Project(
        ST_Transform(ST_SetSRID(ST_MakePoint(0, 0), 4326), 3857),
        10000, -- 10 km in meters
        radians(90) -- heading east in radians
      ),
      4326
    )
  ) AS point_b;
```

   - `ST_Project` can be used to find a point at a certain distance along a certain bearing in PostGIS 3.x and above.
   - If `ST_Project` is unavailable, more traditional geometric methods can be used.
4. **Similarly, for 7km or combining distances:**

   If you want to find the intersection point B that is 10 km from A and 7 km from another point C, you can solve this as the intersection of two circles centered at A and C with radius 10 and 7 km respectively.

   In PostGIS, you can construct these buffers (circles) and find their intersection.

```
WITH
point_a AS (SELECT ST_SetSRID(ST_MakePoint(lon_a, lat_a), 4326) AS geom),
point_c AS (SELECT ST_SetSRID(ST_MakePoint(lon_c, lat_c), 4326) AS geom),
-- transform to a projection in meters to use ST_Buffer correctly
point_a_proj AS (SELECT ST_Transform(geom, 3857) AS geom FROM point_a),
point_c_proj AS (SELECT ST_Transform(geom, 3857) AS geom FROM point_c),
buf_a AS (SELECT ST_Buffer(geom, 10000) AS geom FROM point_a_proj), -- 10 km
buffer
buf_c AS (SELECT ST_Buffer(geom, 7000) AS geom FROM point_c_proj), -- 7 km buffer
intersection AS (SELECT ST_Intersection(buf_a.geom, buf_c.geom) AS geom FROM
buf_a, buf_c)
SELECT ST_AsText(ST_Transform(ST_Centroid(geom), 4326)) AS intersection_center
FROM intersection;
```

   This will give you the central point(s) of the intersection area, which might correspond to possible

point B locations.

If you provide more context or clarify what exactly "solve 10 km and 7 km to get B" means in your use case, I can provide a more precise solution.