

- 1) SELECT DISTINCT sname FROM catalog, part, supplier
WHERE color = "Red" AND catalog.pid = part.pid AND catalog.sid = supplier.sid;
- 2) SELECT DISTINCT supplier.sid FROM supplier, part, catalog
WHERE (color = "Red" OR color = "Green") AND (catalog.pid = part.pid AND catalog.sid = supplier.sid);
- 3) SELECT DISTINCT supplier.sid FROM supplier, part, catalog
WHERE (color = "Red" OR address = "221 Packer Street") AND (catalog.pid = part.pid AND catalog.sid = supplier.sid);
- 4) SELECT distinct sid FROM "catalog" c WHERE sid not in (
SELECT sid FROM (
(SELECT sid , pid FROM (SELECT pid FROM parts WHERE color = "Red" or color = "Green")
AS p CROSS JOIN (SELECT DISTINCT sid FROM catalog) as sp)
EXCEPT (SELECT sid , pid FROM catalog)) AS r);
- 5) SELECT DISTINCT sid FROM catalog c WHERE sid NOT in (
SELECT sid FROM (
(SELECT sid , pid FROM (SELECT pid FROM parts WHERE color = 'Red') AS p CROSS JOIN
(SELECT DISTINCT sid FROM catalog) AS sp)
EXCEPT (SELECT sid , pid FROM catalog)) AS r)
UNION
SELECT DISTINCT sid FROM catalog c WHERE sid NOT IN (SELECT sid FROM (
(SELECT sid, pid FROM (SELECT pid FROM parts WHERE color = "Green") AS p CROSS JOIN
(SELECT DISTINCT sid FROM catalog) AS sp)
EXCEPT (SELECT sid , pid FROM "catalog")) AS r);
- 6) SELECT c1.sid, c2.sid FROM catalog c1, catalog c2 WHERE c1.pid = c2.pid AND c1."cost" > c2."cost";
- 7) SELECT s.pid FROM (
SELECT pid, COUNT(pid) AS cnt FROM catalog c GROUP BY pid) AS s WHERE s.cnt > 1;
- 8) SELECT s.sid, s.avg FROM (SELECT ss.sid, AVG(ss.cost) FROM (
SELECT c.sid, c.cost FROM catalog c, parts p WHERE p.pid = c.pid AND p.color = 'Red') AS ss
GROUP BY sid) AS s;
- 9) SELECT DISTINCT sid FROM catalog WHERE cost >= 50

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CREATE TABLE "catalog" (
    "sid"    INTEGER NOT NULL,
    "pid"    INTEGER NOT NULL,
    "cost"   REAL NOT NULL,
    PRIMARY KEY("sid","pid")
);
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INSERT INTO catalog (sid, pid, cost) VALUES(1, 1, 10);
INSERT INTO catalog (sid, pid, cost) VALUES(1, 2, 20);
INSERT INTO catalog (sid, pid, cost) VALUES(1, 3, 30);
INSERT INTO catalog (sid, pid, cost) VALUES(1, 4, 40);
INSERT INTO catalog (sid, pid, cost) VALUES(1, 5, 50);
INSERT INTO catalog (sid, pid, cost) VALUES(2, 1, 9);
INSERT INTO catalog (sid, pid, cost) VALUES(2, 3, 34);
INSERT INTO catalog (sid, pid, cost) VALUES(2, 5, 48);
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```
CREATE TABLE "part" (  
    "pid"    INTEGER NOT NULL,  
    "pname"  TEXT NOT NULL,  
    "color"  INTEGER NOT NULL,  
    PRIMARY KEY("pid")  
);
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```
INSERT INTO part (pid, pname, color) VALUES(1, "Red1", "Red");  
INSERT INTO part (pid, pname, color) VALUES(2, "Red1", "Red");  
INSERT INTO part (pid, pname, color) VALUES(3, "Green1", "Green");  
INSERT INTO part (pid, pname, color) VALUES(4, "Blue1", "Blue");  
INSERT INTO part (pid, pname, color) VALUES(5, "Red3", "Red");
```

```
CREATE TABLE "supplier" (  
    "sid"    INTEGER NOT NULL,  
    "sname"  TEXT NOT NULL,  
    "adress" TEXT NOT NULL,  
    PRIMARY KEY("sid")  
);
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INSERT INTO supplier (sid, sname, address) VALUES(1, "Yosemite Sham", "Devil's canyon, AZ");  
INSERT INTO supplier (sid, sname, address) VALUES(2, "Wiley E. Coyote", "RR Asylum, NV");  
INSERT INTO supplier (sid, sname, address) VALUES(3, "Elmer Fudd", "Carrot Patch, MN");
```