

```
DROP TABLE "sys"."vectors";
```

```
CREATE TABLE "sys"."vectors" (  
    "id" serial,  
    "x1" double,  
    "y1" double,  
    "x2" double,  
    "y2" double,  
    "a" double  
);
```

```
DECLARE qx1 double, qx2 double, qy1 double, qy2 double;  
SET qx1 = 0;  
SET qy1 = 0;  
SET qx2 = 1;  
SET qy2 = 1;
```

```
select * from vectors where  
(qx1 <= x1 and qx2 >= x1 and qy2 >= y1 and qy1 <= y1) or  
(qx1 <= x2 and qx2 >= x2 and qy2 >= y2 and qy1 <= y2) or  
(  
    not(  
        (qx1 > x1 and qx1 > x2) or  
        (qx2 < x1 and qx2 < x2) or  
        (qy1 < y1 and qy1 < y2) or  
        (qy2 > y1 and qy2 > y2)  
    ) and (  
        ((a * (qy1 - y1) + x1) between qy1 and qy2) or  
        (((qx1 - x1)/a) + y1) between qx1 and qx2) or  
        ((a * (qy2 - y1) + x1) between qy1 and qy2) or  
        (((qx2 - x1)/a) + y1) between qx1 and qx2)  
    )  
);
```