

```
[ > restart:
[ > u1:=sqrt(x*y);
[ > u2:=x^(0.3)*y^(0.7);
[ > u3:=x^(1/4)*y^(3/4);
[ > enviro:=28-x-y;
[ > ppf:=400-x^2-y^2;
[ > with(Optimization):
[ > Maximize(u1,{ppf>=0,enviro>=0},assume=nonnegative);
[ > Maximize(u2,{ppf>=0,enviro>=0},assume=nonnegative);
[ > Maximize(u3,{ppf>=0,enviro>=0},assume=nonnegative);
[ > with(plots):
[ > q:=implicitplot({u1=14,u2=14.73,u3=15.09,enviro=0,ppf=0},x=0..28,y
    =0..28):
[ > display(q);
[ >
[
```