Synlighet från en punkt

```
In[1]:= << Developer`; << Experimental`;
```

```
In[2]:=
        Needs@"Utilities`FilterOptions`"D;
        Needs@"Graphics`FilledPlot`"D;
```

Rutiner för plottning av olikheter (se Mathematica Journal 7:4 (2000)).

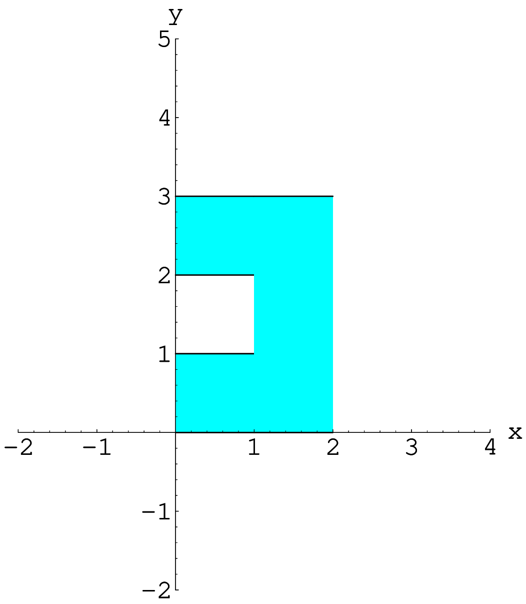
```
In[4]:= cylinderplot@cyl_, x_, opts___?OptionQD :=
         Module@8x0 = cyl@@1, 1DD, x1 = cyl@@1, 5DD, ys<,
          ys = If@Head@cyl@@2DDD === Or, List    Hcyl@@2DDL, 8cyl@@2DD<D;
          FilledPlot@8#@@1DD, #@@5DD<, 8x, x0, x1<,
             DisplayFunction fi Identity, optsD &    ysD
```

```
In[5]:= InequalityPlot@ineq_, 8x_, x0_, x1_<, 8y_, y0_, y1_<, opts___?OptionQD :=
         Module@8cyls, plots<,
          cyls = GenericCylindricalAlgebraicDecomposition@ineq && x0 < x < x1 && y0 < y < y1,
             8x, y<D@@1DD;
          plots = If@cyls === False, Plot@y1 + 1, 8x, x0, x1<,
             PlotRange fi 88x0, x1<, 8y0, y1<<, DisplayFunction fi Identity,
             Evaluate@FilterOptions@Plot, optsDDD,
            If@Head@cylsD === Or, cyls = List    cyls, cyls = 8cyls<D;
            cylinderplot@#, x, FilterOptions@FilledPlot, optsDD &    cylsD;
          Show@plots, FilterOptions@Graphics, optsD, Axes fi True,
           AxesLabel fi 8x, y<, DisplayFunction fi $DisplayFunction,
           AspectRatio fi Automatic, PlotRange fi 88x0, x1<, 8y0, y1<<DD
```

```
General::spell1 : Possible spelling error: new symbol name "cyls" is similar to existing symbol "cyl".
```

```
In[8]:=
        T = 0 £ x && x£ 2 && 0 £ y && y £ 3 && H1 £ x ¨¨ y £ 1 ¨¨ 2 £ yL;
```

```
In[9]:=
        InequalityPlot@T, 8x, - 2, 4<, 8y, - 2, 5<D;
```

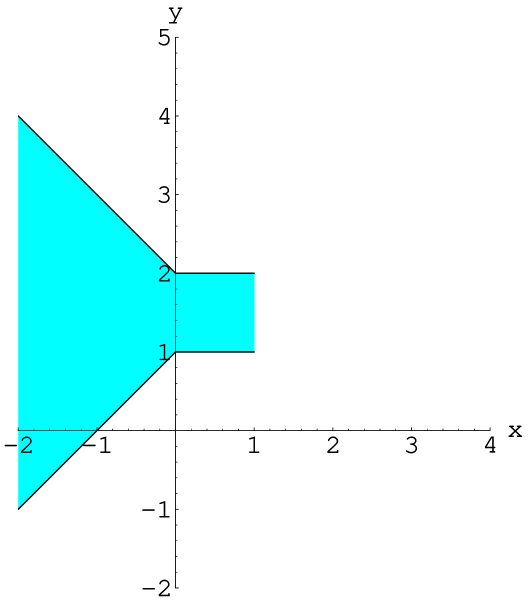



```
In[10]:= a := 1  2 ; b := 3  2 ;
```

```
In[11]:= S = Resolve@ForAll@t, H0 £ t && t £ 1 && Hx ¨ yL ˛ RealsL ,
            H0 > Hx - aL * t + a ¨¨ Hx - aL * t + a > 2 ¨¨ 0 > Hy - bL * t + b ¨¨ Hy - bL * t + b > 3 ¨¨
              H1 > Hx - aL * t + a && Hy - bL * t + b > 1 && 2 > Hy - bL * t + bLLD, 8t<D
```

```
Out[11]= x £ 0 && 1 + x < y < 2 − x ¨¨ 0 < x < 1 && 1 < y < 2
```

```
In[12]:= InequalityPlot@S, 8x, - 2, 4<, 8y, - 2, 5<D
```




```
Out[12]=   Graphics
```