$$\frac{\cos(x)}{r} + C$$

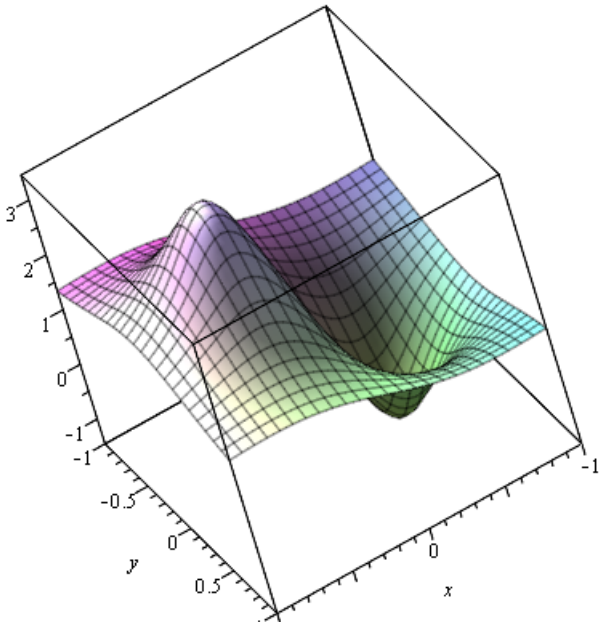
$$\frac{\cos(x)}{r} + C \tag{1}$$

Formula above is the represent of the variable change in the potential formula for the dipole. I convert it to the cartesion coordinates. But the problem is that when y and x both are equal to 0 we get a "hole"... So I add a small constant to the denominator. The constant C can be any number - it just changes the position on the z axis for 3D plot. But does not affect 2D countor plot. So then I plot my formula and get 3Dplot. I want to see in in 2D, so I plot - contourplot - so we can see equapotential lines how we used to see them drawn for the dipole.

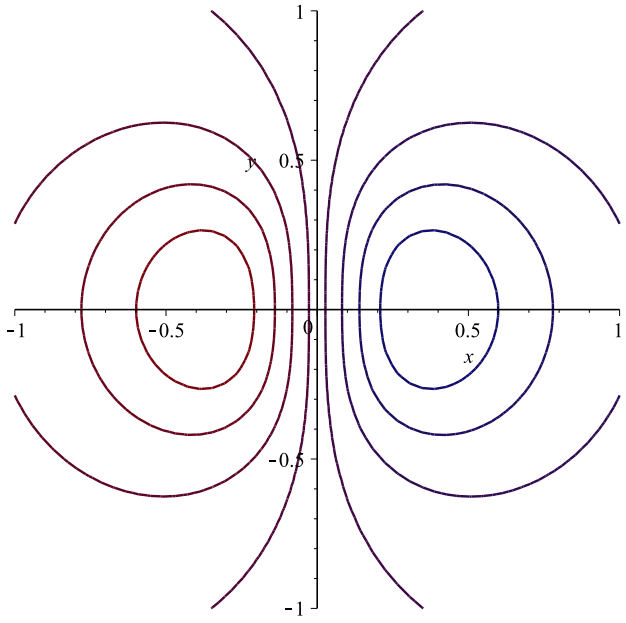
$$F(x,y) := \frac{x}{\left(x^2+y^2\right)^{\frac{3}{2}} + 0.1} + 1$$

$$(x,y) \to \frac{x}{\left(x^2+y^2\right)^{3/2} + 0.1} + 1 \tag{2}$$

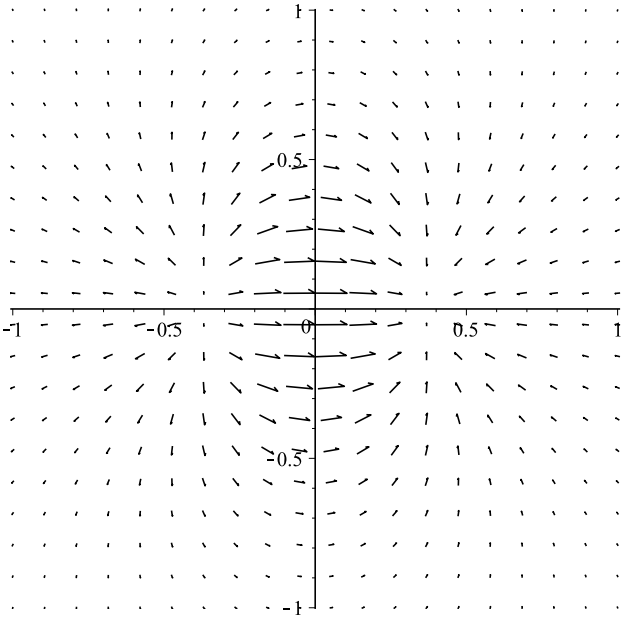
```
with(plots):
plot3d(F(x,y), x=-1..1, y=-1..1)
```



contourplot$(F(x,y), x=-1..1, y=-1..1)$



We can also plot a graph where we can see the vectors , which helps to see the dirrection.
gradplot$(F(x,y), x=-1..1, y=-1..1)$


1
0.5
-1
-0.5
0
0.5
1
-0.5
-1