Explanatory notes on Fehr 6&7

Since we are calling the z-axis the imaginary axis and leaving the x- and y-axes the same, a point on the phantom graph that looks like (a,b,c) means that if $x=a+ic$ and $y=b$ then these will satisfy the **original** equation.

So since $\left(0,-\frac{25}{3},\pm\frac{20}{3}\right)$ is on the phantom graph, $x=i\frac{20}{3}$ and $y=-\frac{25}{3}$ should satisfy both of the original equations.

Check: $x^2+y^2=\left(i\frac{20}{3}\right)^2+\left(-\frac{25}{3}\right)^2=-\frac{400}{9}+\frac{625}{9}=\frac{225}{9}=25$ so it is '*on*' the circle.

Similarly $\frac{16}{3}y=\frac{16}{3}\left(-\frac{25}{3}\right)=-\frac{400}{9}$ and $x^2=\left(i\frac{20}{3}\right)^2=-\frac{400}{9}$. The coordinates satisfy both equations.,