

$$\frac{3+ki}{2+5i} = \frac{3+ki}{2+5i} \cdot \frac{2-5i}{2-5i} =$$

$$\frac{6-15i+2ki-5ki^2}{4-\cancel{10i}+\cancel{10i}-25i^2} = \frac{6-15i+2ki-5k(-1)}{4-25(-1)} =$$

$$\frac{6+5k-15i+2ki}{29} = \frac{6+5k}{29} + \frac{2k-15}{29}i$$

$$\frac{6+5k}{29} = 0 \Rightarrow 6+5k=0 \Rightarrow k = -\frac{6}{5}$$

Si  $k = -\frac{6}{5}$ , EL NÚMERO COMPLEJO

$\frac{3+ki}{2+5i}$  ES IMAGINARIO PURO.