

$$(3 - mi) \cdot (4 + ni) = 13 - 4i$$

$$12 + 3ni - 4mi - mn i^2 = 13 - 4i$$

$$12 + mn + (3n - 4m)i = 13 + (-4)i$$

$$12 + mn = 13 \Rightarrow mn = 1 \Rightarrow m = \frac{1}{n}$$

$$3n - 4m = -4 \Rightarrow 3n - 4 \cdot \frac{1}{n} = -4$$

$$3n - \frac{4}{n} = -4$$

$$\frac{3n^2}{n} - \frac{4}{n} = \frac{-4n}{n}$$

$$3n^2 + 4n - 4 = 0$$

$$n = \frac{-4 \pm \sqrt{(4)^2 - 4 \cdot 3 \cdot (-4)}}{2 \cdot 3} = \begin{cases} -2 \\ \frac{2}{3} \end{cases}$$

$$\text{Si } n = -2 \Rightarrow m = \frac{1}{n} = \frac{1}{-2} = -\frac{1}{2}$$

$$\text{Si } n = \frac{2}{3} \Rightarrow m = \frac{1}{n} = \frac{1}{\frac{2}{3}} = \frac{3}{2}$$