

Name ANSWER KEY _____ points

Express in the form $a+bi$:

$$\frac{3-2i}{5+4i} = \frac{3-2i}{5+4i} \cdot \frac{5-4i}{5-4i} = \frac{15-22i+8i^2}{25+16} = \frac{15-22i-8}{41} = \boxed{\frac{7}{41} - \frac{22}{41}i}$$