

Friday 1/19

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### Problem 1.1.8

Write the number in the form  $a + bi$

$$\begin{aligned}\frac{(8 + 2i) - (1 - i)}{(2 + i)^2} &= \frac{7 + 3i}{3 + 4i} \\ &= \left( \frac{7 + 3i}{3 + 4i} \right) \left( \frac{3 - 4i}{3 - 4i} \right) \\ &= \frac{33 - 19i}{25} \\ &= \frac{33}{25} - \frac{19}{25}i\end{aligned}$$