

Darius
Rubin 8/17/20

HW 3 Pg 118 - Section 2.4

$$\begin{aligned} \textcircled{\#15} \quad (3+2i) + (5-3i) &= \textcircled{8-i} \\ \cancel{(3+2i)} + \cancel{(5-3i)} & \\ \boxed{8-i} & \end{aligned}$$

$$\begin{aligned} \textcircled{\#17} \quad (-5+3i) - (6-i) &= \textcircled{-11+4i} \\ (-5+3i) - (6-i) & \\ (-5+3i) + (-6+i) & \\ \textcircled{-11+4i} & \end{aligned}$$

$$\begin{aligned} \textcircled{\#19} \quad (-4+4i) - (-6+9i) &= \textcircled{2-5i} \\ (-4+4i) + (6-9i) & \\ \textcircled{2-5i} & \end{aligned}$$

$$\begin{aligned} \textcircled{\#22} \quad (6-2i)(5) &= \textcircled{30-10i} \\ (6-2i)(5) & \\ \textcircled{30-10i} & \end{aligned}$$

$$\begin{aligned} \textcircled{\#24} \quad (2+3i)(4-i) &= \textcircled{11+10i} \\ (2+3i)(4-i) & \\ 8-2i+12i-3i^2 & \\ 8+10i \quad (+) & \\ \textcircled{11+10i} & \end{aligned}$$

$$\begin{aligned} \textcircled{\#32} \quad \frac{2-3i}{4+3i} &= \textcircled{-\frac{1}{25} - \frac{18i}{25}} \quad \frac{8-6i-12i+9i^2}{16-9i^2} \\ & \quad \frac{2-3i}{4+3i} \times \frac{4-3i}{4-3i} \quad \left(\frac{-18i}{25} - \frac{1}{25} \right) \end{aligned}$$