

$$\begin{aligned} 20\frac{2}{13} - 13\frac{10}{13} &= \frac{20 \cdot 13 + 2}{13} - \frac{10 \cdot 13 + 13}{13} = 7 + \frac{2}{13} - \frac{10}{13} = 7 + \frac{2-10}{13} = 7 + \frac{-8}{13} = \frac{7 \cdot 13}{13} - \frac{8}{13} = \\ &= \frac{7 \cdot 13}{13} - \frac{8}{13} = \frac{91-8}{13} = \frac{83}{13} = \frac{5+6 \cdot 13}{13} = 6\frac{5}{13} \end{aligned}$$