

$$\begin{aligned}
 d) \quad & 2\frac{7}{12} - \frac{2}{3} : 8 + \frac{7}{8} = \\
 & = 2\frac{7}{12} - \frac{\cancel{2}^1}{3} \cdot \frac{1}{\cancel{8}_4} + \frac{7}{8} = \\
 & = 2\frac{7}{12} - \frac{1}{12} + \frac{7}{8} = \\
 & = 2\frac{1}{2} + \frac{7}{8} = 2\frac{4}{8} + \frac{7}{8} = \boxed{3\frac{3}{8}}
 \end{aligned}$$

$$\begin{aligned}
 e) \quad & 1\frac{4}{5} - \frac{2}{5} : \frac{5}{4} = \\
 & = 1\frac{4}{5} - \frac{2}{5} \cdot \frac{4}{5} = \\
 & = 1\frac{4}{5} - \frac{8}{25} = \\
 & = 1\frac{20}{25} - \frac{8}{25} = \boxed{1\frac{12}{25}}
 \end{aligned}$$

$$\begin{aligned}
 f) \quad & 3\frac{3}{4} : \frac{2}{3} : 8 + \frac{1}{\cancel{8}_1} \cdot \frac{\cancel{16}^2}{5} = \\
 & = \frac{15}{4} \cdot \frac{3}{2} \cdot \frac{1}{8} + \frac{2}{5} = \\
 & = \frac{45}{64} + \frac{2}{5} = \\
 & = \frac{225}{320} + \frac{128}{320} = \frac{353}{320} = \boxed{1\frac{33}{320}}
 \end{aligned}$$