

$$2\frac{5}{8} \div \frac{3}{4} = \frac{21}{8} \cdot \frac{4}{3} = \frac{21 \cdot 4}{8 \cdot 3} = \frac{21 \cdot 4}{3 \cdot 8} = \frac{7 \cdot 1}{1 \cdot 2} = \frac{7}{2} = 3\frac{1}{2}$$