

5 Convert the following improper fractions into mixed fractions.

a. $\frac{21}{6} = 21 \div 6 = 3$
 $= \frac{6 \times 3 + 3}{6}$

$= 3 \frac{3}{6}$

$$\begin{array}{r} 3 \\ 6 \overline{) 21} \\ - 18 \\ \hline 3 \end{array}$$

b. $\frac{112}{6} = 6 \times 18 + 4$
 ~~$= 19 \frac{4}{6}$~~
 $= 18 \frac{4}{6}$

$$\begin{array}{r} 18 \\ 6 \overline{) 112} \\ - 12 \\ \hline 52 \\ - 48 \\ \hline 4 \end{array}$$

c. $\frac{123}{6} = 6 \times 20 + 3$

$= 20 \frac{3}{6}$

$$\begin{array}{r} 20 \\ 6 \overline{) 123} \\ - 12 \\ \hline 03 \\ - 0 \\ \hline 3 \end{array}$$

$$d. \quad \frac{98}{16} = \frac{16 \times 6 + 2}{16}$$

$$= 6 \frac{2}{16}$$

$$\begin{array}{r} 6 \\ 16 \overline{) 98} \\ \underline{- 96} \\ 2 \end{array}$$

$$e. \quad \frac{105}{14} = \frac{14 \times 7 + 7}{14}$$

$$= 7 \frac{7}{14}$$

$$\begin{array}{r} 7 \\ 14 \overline{) 105} \\ \underline{- 98} \\ 7 \end{array}$$

$$f. \quad \frac{223}{18} = \frac{18 \times 12 + 7}{18}$$

$$= 12 \frac{7}{18}$$

$$\begin{array}{r} 12 \\ 18 \overline{) 223} \\ \underline{- 18} \downarrow \\ 43 \\ \underline{- 36} \\ 7 \end{array}$$

$$g. \quad \frac{445}{15} = \frac{15 \times 29 + 10}{15}$$

$$= 29 \frac{10}{15}$$

$$\begin{array}{r} 29 \\ 15 \overline{) 445} \\ \underline{- 30} \downarrow \\ 145 \\ \underline{- 135} \\ 10 \end{array}$$

$$\begin{aligned}
 \text{ii) } \frac{616}{24} &= \frac{24 \times 24 + 20}{24} \\
 &= 25 \frac{14}{24}
 \end{aligned}$$

$$\begin{array}{r}
 25 \\
 24 \overline{) 616} \\
 \underline{- 48} \\
 136 \\
 \underline{- 120} \\
 16
 \end{array}$$

$$\begin{aligned}
 \text{i) } \frac{305}{85} &= \frac{85 \times 3 + 50}{85} \\
 &= 3 \frac{50}{85}
 \end{aligned}$$

$$\begin{array}{r}
 3 \\
 85 \overline{) 305} \\
 \underline{- 255} \\
 50
 \end{array}$$

$$\begin{aligned}
 \text{ii) } \frac{1148}{32} &= \\
 &= 35 \frac{28}{32}
 \end{aligned}$$

$$\begin{array}{r}
 35 \\
 32 \overline{) 1148} \\
 \underline{- 96} \\
 188 \\
 \underline{- 160} \\
 28
 \end{array}$$