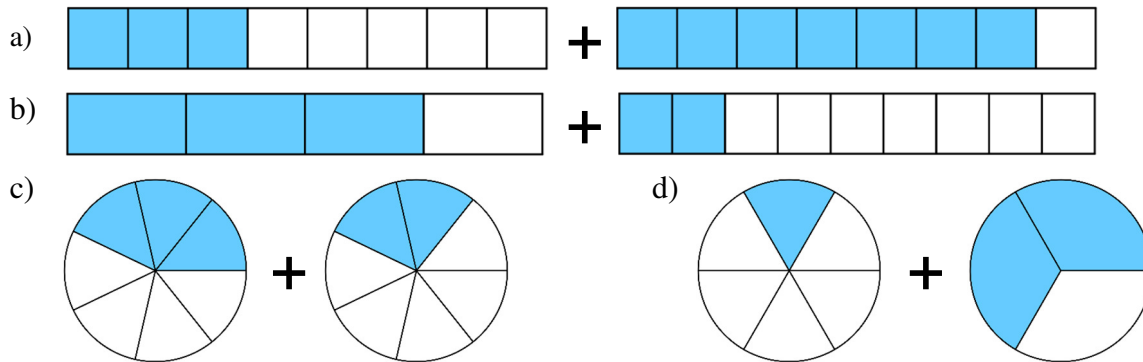


## ADDING AND SUBTRACTING PROPER FRACTIONS

CHECK YOUR UNDERSTANDING

- 1) State a fraction addition statement corresponding to the shaded portions shown in each of the following diagrams.



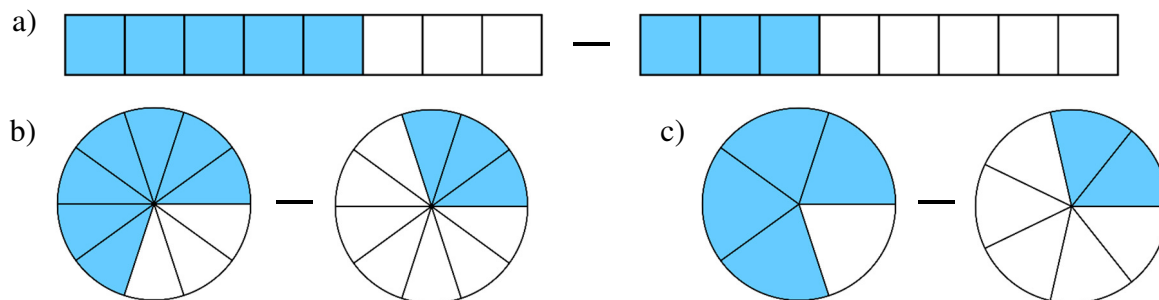
- 2) Add.

a)  $\frac{4}{7} + \frac{2}{7}$     b)  $\frac{1}{5} + \frac{3}{5}$     c)  $\frac{1}{2} + \frac{1}{4}$     d)  $\frac{1}{6} + \frac{2}{3}$     e)  $\frac{1}{3} + \frac{2}{9}$     f)  $\frac{3}{4} + \frac{3}{16}$

- 3) Add.

a)  $\frac{3}{4} + \frac{1}{6}$     b)  $\frac{3}{8} + \frac{5}{12}$     c)  $\frac{2}{5} + \frac{3}{7}$     d)  $\frac{4}{15} + \frac{3}{10}$     e)  $\frac{5}{9} + \frac{1}{6}$     f)  $\frac{4}{11} + \frac{3}{8}$

- 4) State a fraction subtraction statement corresponding to the shaded portions shown in each of the following diagrams.



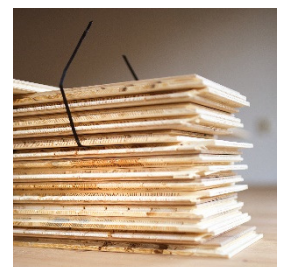
- 5) Subtract.

a)  $\frac{6}{7} - \frac{4}{7}$     b)  $\frac{13}{15} - \frac{9}{15}$     c)  $\frac{3}{4} - \frac{5}{8}$     d)  $\frac{7}{9} - \frac{2}{3}$     e)  $\frac{1}{2} - \frac{1}{16}$     f)  $\frac{3}{4} - \frac{9}{20}$

- 6) Subtract.

a)  $\frac{4}{5} - \frac{3}{4}$     b)  $\frac{6}{7} - \frac{2}{3}$     c)  $\frac{9}{10} - \frac{1}{2}$     d)  $\frac{2}{3} - \frac{3}{8}$     e)  $\frac{5}{6} - \frac{7}{9}$     f)  $\frac{8}{15} - \frac{3}{16}$

- 7) There are two definitions for the thickness of plywood. The *nominal thickness* is the thickness before the sheet is sanded, whereas the *actual thickness* is the thickness after sanding. The actual thickness is typically  $\frac{1}{32}$  inches less than the nominal thickness. Determine the actual thickness of a sheet of plywood rated at a nominal thickness of  $\frac{5}{8}$  inches.



**ANSWERS**

- 1) a)  $\frac{3}{8} + \frac{7}{8}$       b)  $\frac{3}{4} + \frac{2}{9}$       c)  $\frac{3}{7} + \frac{2}{7}$       d)  $\frac{1}{6} + \frac{2}{3}$
- 2) a)  $\frac{6}{7}$       b)  $\frac{4}{5}$       c)  $\frac{3}{4}$       d)  $\frac{5}{6}$       e)  $\frac{5}{9}$       f)  $\frac{15}{16}$
- 3) a)  $\frac{11}{12}$       b)  $\frac{19}{24}$       c)  $\frac{29}{35}$       d)  $\frac{17}{30}$       e)  $\frac{13}{18}$       f)  $\frac{65}{88}$
- 4) a)  $\frac{5}{8} - \frac{3}{8}$       b)  $\frac{7}{10} - \frac{3}{10}$       c)  $\frac{4}{5} - \frac{2}{7}$
- 5) a)  $\frac{2}{7}$       b)  $\frac{4}{15}$       c)  $\frac{1}{8}$       d)  $\frac{1}{9}$       e)  $\frac{7}{16}$       f)  $\frac{6}{20}$  (or  $\frac{3}{10}$ )
- 6) a)  $\frac{1}{20}$       b)  $\frac{4}{21}$       c)  $\frac{4}{10}$  (or  $\frac{2}{5}$ )      d)  $\frac{7}{24}$       e)  $\frac{1}{18}$       f)  $\frac{83}{240}$
- 7)  $\frac{19}{32}$  inches