

20A

1) done

2) done

$$\begin{array}{r} 4 \frac{1}{3} + \frac{1}{3} = 4 \frac{2}{3} \\ -3 \frac{2}{3} + \frac{1}{3} = 4 \\ \hline 2 \frac{1}{3} \end{array}$$

$$\begin{array}{r} 7 + \frac{1}{4} = 7 \frac{1}{4} \\ -2 \frac{3}{4} + \frac{1}{4} = 3 \\ \hline 4 \frac{1}{4} \end{array}$$

$$\begin{array}{r} 6 \frac{1}{5} + \frac{3}{5} = 6 \frac{4}{5} \\ -3 \frac{2}{5} + \frac{3}{5} = 4 \\ \hline 2 \frac{4}{5} \end{array}$$

$$\begin{array}{r} 8 + \frac{3}{8} = 8 \frac{3}{8} \\ -1 \frac{5}{8} + \frac{3}{8} = 2 \\ \hline 6 \frac{3}{8} \end{array}$$

$$\begin{array}{r} 9 \frac{5}{16} + \frac{9}{16} = 9 \frac{14}{16} \\ -2 \frac{7}{16} + \frac{9}{16} = 3 \\ \hline 6 \frac{14}{16} = 6 \frac{7}{8} \end{array}$$

$$\begin{array}{r} 10 + \frac{1}{8} = 10 \frac{1}{8} \\ -4 \frac{7}{8} + \frac{1}{8} = 5 \\ \hline 5 \frac{1}{8} \end{array}$$

20B

$$\begin{array}{r} 5 \frac{2}{5} + \frac{1}{5} = 5 \frac{3}{5} \\ -1 \frac{4}{5} + \frac{1}{5} = 2 \\ \hline 3 \frac{3}{5} \end{array}$$

$$\begin{array}{r} 9 + \frac{1}{4} = 9 \frac{1}{4} \\ -2 \frac{3}{4} + \frac{1}{4} = 3 \\ \hline 6 \frac{1}{4} \end{array}$$

$$\begin{array}{r} 10 \frac{1}{8} + \frac{1}{8} = 10 \frac{2}{8} \\ -2 \frac{7}{8} + \frac{1}{8} = 3 \\ \hline 7 \frac{2}{8} = 7 \frac{1}{4} \end{array}$$

$$\begin{array}{r} 7 + \frac{2}{3} = 7 \frac{2}{3} \\ -6 \frac{1}{3} + \frac{2}{3} = 7 \\ \hline 2 \frac{1}{3} \end{array}$$

$$\begin{array}{r} 12 \frac{1}{6} + \frac{4}{6} = 12 \frac{5}{6} \\ -8 \frac{2}{6} + \frac{4}{6} = 9 \\ \hline 3 \frac{5}{6} \end{array}$$

$$\begin{array}{r} 25 + \frac{2}{5} = 25 \frac{2}{5} \\ -5 \frac{3}{5} + \frac{2}{5} = 6 \\ \hline 19 \frac{2}{5} \end{array}$$

$$\begin{array}{r} 8 \frac{3}{10} + \frac{1}{10} = 8 \frac{4}{10} \\ -1 \frac{9}{10} + \frac{1}{10} = 2 \\ \hline 6 \frac{4}{10} = 6 \frac{2}{5} \end{array}$$

$$\begin{array}{r} 4 + \frac{3}{8} = 4 \frac{3}{8} \\ -3 \frac{5}{8} + \frac{3}{8} = 4 \\ \hline 3 \frac{1}{8} \end{array}$$

20C

$$\begin{array}{r} 6 \frac{3}{6} + \frac{1}{6} = 6 \frac{4}{6} \\ -2 \frac{5}{6} + \frac{1}{6} = 3 \\ \hline 3 \frac{4}{6} = 3 \frac{2}{3} \end{array}$$

$$\begin{array}{r} 14 + \frac{1}{5} = 14 \frac{1}{5} \\ -5 \frac{4}{5} + \frac{1}{5} = 6 \\ \hline 8 \frac{1}{5} \end{array}$$

$$\begin{array}{r} 16 \frac{2}{9} + \frac{5}{9} = 16 \frac{7}{9} \\ -7 \frac{4}{9} + \frac{5}{9} = 8 \\ \hline 8 \frac{7}{9} \end{array}$$

$$\begin{array}{r} 9 + \frac{1}{4} = 9 \frac{1}{4} \\ -3 \frac{3}{4} + \frac{1}{4} = 4 \\ \hline 5 \frac{1}{4} \end{array}$$

$$\begin{array}{r} 13 \frac{3}{7} + \frac{1}{7} = 13 \frac{4}{7} \\ -8 \frac{6}{7} + \frac{1}{7} = 9 \\ \hline 4 \frac{4}{7} \end{array}$$

$$\begin{array}{r} 30 + \frac{3}{10} = 30 \frac{3}{10} \\ -11 \frac{7}{10} + \frac{3}{10} = 12 \\ \hline 18 \frac{3}{10} \end{array}$$

$$\begin{array}{r} 6 \frac{1}{4} + \frac{2}{4} = 6 \frac{3}{4} \\ -2 \frac{2}{4} + \frac{2}{4} = 3 \\ \hline 3 \frac{3}{4} \end{array}$$

$$\begin{array}{r} 5 + \frac{5}{8} = 5 \frac{5}{8} \\ -1 \frac{3}{8} + \frac{5}{8} = 2 \\ \hline 3 \frac{5}{8} \end{array}$$

20D

$$\begin{array}{r} 1) \quad 5\frac{2}{7} + \frac{1}{7} = 5\frac{3}{7} \\ - 3\frac{6}{7} + \frac{1}{7} = 4 \\ \hline 1\frac{3}{7} \end{array}$$

$$\begin{array}{r} 2) \quad 19 + \frac{1}{3} = 19\frac{1}{3} \\ - 6\frac{2}{3} + \frac{1}{3} = 7 \\ \hline 12\frac{1}{3} \end{array}$$

$$3) \quad 2\frac{5}{8} + 1\frac{7}{8} = 3\frac{12}{8} = 4\frac{4}{8} = 4\frac{1}{2}$$

$$4) \quad 3\frac{7}{5} - 1\frac{4}{5} = 2\frac{3}{5}$$

$$5) \quad 3\frac{1}{2} + 5\frac{1}{2} = 8\frac{2}{2} = 9$$

$$6) \quad 5 \times 5$$

$$7) \quad 2 \times 2 \times 3 \times 3$$

$$8) \quad 2 \times 2 \times 11$$

$$9) \quad \frac{3}{7} = \frac{6}{14} = \frac{9}{21}$$

$$10) \quad \frac{2}{3} = \frac{4}{6} = \frac{6}{9}$$

$$11) \quad \frac{1}{9} = \frac{2}{18} = \frac{3}{27}$$

12) done

13) done

$$14) \quad 12 \div 2 = 6 \text{ qts.}$$

$$15) \quad 11 \times 2 = 22 \text{ pts.}$$

$$16) \quad 10\frac{3}{2} = 5\frac{1}{2} = 14\frac{1}{2} \text{ lbs.}$$

$$17) \quad 7 \times 2 = 14$$

$$18) \quad 6 \times 3 = 18 \text{ ft.}$$

$$19) \quad 10 \times 10 \times 10 = 5,000 \text{ cu. ft.}$$

20E

$$\begin{array}{r} 1) \quad 7\frac{4}{9} + \frac{2}{9} = 7\frac{6}{9} \\ - 3\frac{7}{9} + \frac{2}{9} = 4 \\ \hline 3\frac{6}{9} = 3\frac{2}{3} \end{array}$$

$$\begin{array}{r} 2) \quad 13 + \frac{7}{8} = 13\frac{7}{8} \\ - 7\frac{1}{8} + \frac{7}{8} = 8 \\ \hline 5\frac{7}{8} \end{array}$$

$$3) \quad 2\frac{1}{5} + 4\frac{3}{5} = 6\frac{4}{5}$$

$$4) \quad 5\frac{9}{6} - 4\frac{5}{6} = 1\frac{4}{6} = 1\frac{2}{3}$$

$$5) \quad 5\frac{2}{3} + 5\frac{2}{3} = 10\frac{4}{3} = 11\frac{1}{3}$$

$$6) \quad 25: 5, 25$$

$$35: 5, 7, 35$$

$$\text{GCF} = 5$$

$$7) \quad 12: 2, 3, 4, 6, 12$$

$$36: 2, 3, 4, 6, 9, 12, 18, 36$$

$$\text{GCF} = 12$$

$$8) \quad 42: 2, 3, 6, 7, 14, 21, 42$$

$$49: 7, 49$$

$$\text{GCF} = 7$$

$$9) \quad \frac{6}{12} - \frac{2}{12} = \frac{4}{12} = \frac{1}{3}$$

$$10) \quad \frac{35}{50} - \frac{20}{50} = \frac{15}{50} = \frac{3}{10}$$

$$11) \quad \frac{99}{108} - \frac{60}{108} = \frac{39}{108} = \frac{13}{36}$$

$$12) \quad 11 \times 2 = 22 \text{ pts.}$$

$$13) \quad 18 \div 2 = 9 \text{ qts.}$$

$$14) \quad 22 \div 2 = 11 \text{ qts.}$$

$$15) \quad 2\frac{5}{8} + 3\frac{7}{8} = 5\frac{12}{8} = 6\frac{4}{8} = 6\frac{1}{2}$$

$$16) \quad \text{no}$$

$$17) \quad 16 \div 2 = 8 \text{ qts.}$$

$$18) \quad 8\frac{1}{2} \text{ in.}$$

$$19) \quad \$25 + \$43 = \$68$$

$$1/4 \times \$68 = \$17$$

$$20) \quad 7 \times 7 = 49$$

20F

$$\begin{array}{r} 1) \quad 9\frac{1}{6} + \frac{1}{6} = 9\frac{2}{6} \\ - 4\frac{5}{6} + \frac{1}{6} = 5 \\ \hline 4\frac{2}{6} = 4\frac{1}{3} \end{array}$$

$$\begin{array}{r} 2) \quad 18 + \frac{1}{2} = 18\frac{1}{2} \\ - 12\frac{1}{2} + \frac{1}{2} = 13 \\ \hline 5\frac{1}{2} \end{array}$$

$$3) \quad 3\frac{3}{8} + 5\frac{5}{8} = 8\frac{8}{8} = 9$$

$$4) \quad 8\frac{1}{3} - 6\frac{1}{3} = 2$$

$$5) \quad 7\frac{5}{9} + 7\frac{8}{9} = 14\frac{13}{9} = 15\frac{4}{9}$$

$$6) \quad 192 \div 3 = 64; 64 \times 2 = 128$$

$$7) \quad 555 \div 5 = 111; 111 \times 1 = 111$$

$$8) \quad 84 \div 4 = 21; 21 \times 3 = 63$$

$$9) \quad \frac{6}{8} + \frac{4}{8} = \frac{10}{8} = \frac{5}{4} = 1\frac{1}{4}$$

$$10) \quad \frac{40}{110} + \frac{33}{110} = \frac{73}{110}$$

$$11) \quad \frac{15}{27} + \frac{9}{27} = \frac{24}{27} = \frac{8}{9}$$

$$12) \quad 12 \times 2 = 24 \text{ pts.}$$

$$13) \quad 28 \div 2 = 14 \text{ qts.}$$

$$14) \quad 15 \times 3 = 45 \text{ ft.}$$

$$15) \quad 4\frac{2}{10} - 1\frac{9}{10} = 3\frac{12}{10} - 1\frac{9}{10} = 2\frac{3}{10} \text{ in.}$$

16) yes

$$\begin{array}{l} 17) \quad 4 + 6 = 10 \text{ qts. of juice} \\ 10 \div 5 = 2 \text{ qts. per person} \\ 2 \times 2 = 4 \text{ pts. per person} \end{array}$$

18) 11 in.

$$19) \quad 1\frac{1}{2} + 1\frac{1}{2} + 1\frac{1}{2} + 1\frac{1}{2} = 4\frac{4}{2} = 6 \text{ ft.}$$

$$20) \quad \frac{1}{8} \div \frac{1}{4} = \frac{4}{32} \div \frac{8}{32} = \frac{4 \div 8}{1} = \frac{4}{8} = \frac{1}{2} \text{ mi.}$$