

22A

- 1) done
- 2) done
- 3)  $9\frac{8}{24} - 6\frac{9}{24} = 8\frac{32}{24} - 6\frac{9}{24} = 2\frac{23}{24}$
- 4)  $10\frac{15}{18} - 3\frac{6}{18} = 7\frac{9}{18} = 7\frac{1}{2}$
- 5)  $7\frac{27}{45} - 2\frac{40}{45} = 6\frac{72}{45} - 2\frac{40}{45} = 4\frac{32}{45}$
- 6)  $9\frac{2}{16} - 8\frac{8}{16} = 8\frac{18}{16} - 8\frac{8}{16} = \frac{10}{16} = \frac{5}{8}$
- 7)  $8\frac{4}{8} - 2\frac{6}{8} = 7\frac{12}{8} - 2\frac{6}{8} = 5\frac{6}{8} = 5\frac{3}{4}$
- 8)  $5\frac{6}{18} - 2\frac{15}{18} = 4\frac{24}{18} - 2\frac{15}{18} = 2\frac{9}{18} = 2\frac{1}{2}$
- 9)  $11\frac{4}{12} - 3\frac{3}{12} = 8\frac{1}{12}$
- 10)  $26\frac{10}{15} - 22\frac{12}{15} = 25\frac{25}{15} - 22\frac{12}{15} = 3\frac{13}{15}$

22B

- 1)  $10\frac{7}{28} - 3\frac{16}{28} = 9\frac{35}{28} - 3\frac{16}{28} = 6\frac{19}{28}$
- 2)  $9\frac{6}{18} - 2\frac{15}{18} = 8\frac{24}{18} - 2\frac{15}{18} = 6\frac{9}{18} = 6\frac{1}{2}$
- 3)  $7\frac{8}{10} - 7\frac{5}{10} = \frac{3}{10}$
- 4)  $3\frac{5}{15} - 1\frac{12}{15} = 2\frac{20}{15} - 1\frac{12}{15} = 1\frac{8}{15}$
- 5)  $5\frac{5}{30} - 2\frac{24}{30} = 4\frac{35}{30} - 2\frac{24}{30} = 2\frac{11}{30}$
- 6)  $8\frac{6}{10} - 4\frac{5}{10} = 4\frac{1}{10}$
- 7)  $15\frac{20}{28} - 12\frac{21}{28} = 14\frac{48}{28} - 12\frac{21}{28} = 2\frac{27}{28}$
- 8)  $2\frac{4}{8} - 2\frac{2}{8} = \frac{2}{8} = \frac{1}{4}$
- 9)  $7\frac{9}{30} - 5\frac{20}{30} = 6\frac{39}{30} - 5\frac{20}{30} = 1\frac{19}{30}$
- 10)  $8\frac{9}{18} - 4\frac{4}{18} = 4\frac{5}{18}$

22C

- 1)  $8\frac{10}{60} - 1\frac{18}{60} = 7\frac{70}{60} - 1\frac{18}{60} = 6\frac{52}{60} = 6\frac{13}{15}$
- 2)  $5\frac{6}{24} - 2\frac{20}{24} = 4\frac{30}{24} - 2\frac{20}{24} = 2\frac{10}{24} = 2\frac{5}{12}$
- 3)  $14\frac{24}{32} - 11\frac{28}{32} = 13\frac{56}{32} - 11\frac{28}{32} = 2\frac{28}{32} = 2\frac{7}{8}$
- 4)  $7\frac{8}{20} - 3\frac{5}{20} = 4\frac{3}{20}$
- 5)  $8\frac{3}{18} - 2\frac{12}{18} = 7\frac{21}{18} - 2\frac{12}{18} = 5\frac{9}{18} = 5\frac{1}{2}$
- 6)  $10\frac{5}{10} - 3\frac{8}{10} = 9\frac{15}{10} - 3\frac{8}{10} = 6\frac{7}{10}$
- 7)  $8\frac{10}{14} - 2\frac{7}{14} = 6\frac{3}{14}$
- 8)  $4\frac{4}{8} - 1\frac{6}{8} = 3\frac{12}{8} - 1\frac{6}{8} = 2\frac{6}{8} = 2\frac{3}{4}$
- 9)  $6\frac{12}{21} - 4\frac{14}{21} = 5\frac{33}{21} - 4\frac{14}{21} = 1\frac{19}{21}$
- 10)  $10\frac{5}{30} - 5\frac{12}{30} = 9\frac{35}{30} - 5\frac{12}{30} = 4\frac{23}{30}$

22D

- 1)  $8\frac{8}{28} - 2\frac{21}{28} = 7\frac{36}{28} - 2\frac{21}{28} = 5\frac{15}{28}$
- 2)  $14\frac{2}{6} - 3\frac{3}{6} = 13\frac{8}{6} - 3\frac{3}{6} = 10\frac{5}{6}$
- 3)  $6\frac{12}{15} + 1\frac{10}{15} = 7\frac{22}{15} = 8\frac{7}{15}$
- 4)  $4\frac{3}{5} + 1\frac{2}{5} = 5\frac{5}{5} = 6$
- 5)  $12\frac{7}{56} + 9\frac{32}{56} = 21\frac{39}{56}$
- 6)  $\frac{1}{2} \div \frac{1}{2} = \frac{1 \div 1}{1} = 1$
- 7)  $\frac{1}{4} \times \frac{5}{6} = \frac{5}{24}$
- 8)  $\frac{40}{48} \div \frac{42}{48} = \frac{40 \div 42}{1} = \frac{40}{42} = \frac{20}{21}$
- 9)  $\frac{20}{3}$
- 10)  $\frac{247}{9}$
- 11)  $\frac{68}{5}$
- 12) done
- 13) done
- 14)  $10 \times 4 = 40$  qts.
- 15)  $11 \div 4 = 2\frac{3}{4}$  gal.
- 16)  $4\frac{3}{10} - 3\frac{9}{10} = 3\frac{13}{10} - 3\frac{9}{10} = \frac{4}{10} = \frac{2}{5}$  yds.
- 17)  $2\frac{5}{8}'' \times 6\frac{1}{8}''$  (answers that are close may be accepted)
- 18) 10

22E

- 1)  $10\frac{7}{56} - 4\frac{48}{56} = 9\frac{63}{56} - 4\frac{48}{56} = 5\frac{15}{56}$
- 2)  $4\frac{4}{20} - 3\frac{15}{20} = 3\frac{24}{20} - 3\frac{15}{20} = \frac{9}{20}$
- 3)  $2\frac{5}{50} + 6\frac{10}{50} = 8\frac{15}{50} = 8\frac{3}{10}$
- 4)  $2\frac{21}{24} + 1\frac{16}{24} = 3\frac{37}{24} = 4\frac{13}{24}$
- 5)  $25\frac{16}{72} + 7\frac{45}{72} = 32\frac{61}{72}$
- 6)  $\frac{1}{5} \times \frac{1}{10} = \frac{1}{50}$
- 7)  $\frac{10}{50} \div \frac{5}{50} = \frac{10 \div 5}{1} = 2$
- 8)  $\frac{1}{2} \times \frac{3}{5} = \frac{3}{10}$
- 9)  $\frac{24}{32} = \frac{24}{32}$
- 10)  $\frac{9}{90} < \frac{20}{90}$
- 11)  $\frac{40}{88} > \frac{33}{88}$
- 12)  $23 \div 4 = 5\frac{3}{4}$  gal.
- 13)  $5 \times 4 = 20$  qts.
- 14)  $30 \times 3 = 90$  ft.
- 15)  $5\frac{1}{2} + 3\frac{1}{2} = 8\frac{2}{2} = 9$  gallons total  
 $9 - 6 = 3$  gallons left  
 $3 \times 4 = 12$  quarts left
- 16)  $\frac{5}{16} \div \frac{1}{8} = \frac{40}{128} \div \frac{16}{128} = \frac{40 \div 16}{1} = \frac{40}{16} = \frac{5}{2} = 2\frac{1}{2}$  pieces
- 17)  $2 \times 2 \times 2 \times 2 \times 3$
- 18)  $4 \times 4 = 16$
- 19) 1 in.
- 20) 4

22F

- 1)  $12\frac{14}{18} - 1\frac{9}{18} = 11\frac{5}{18}$
- 2)  $4\frac{4}{3} - 2\frac{2}{3} = 2\frac{2}{3}$
- 3)  $1\frac{3}{6} + 3\frac{4}{6} = 4\frac{7}{6} = 5\frac{1}{6}$
- 4)  $4\frac{10}{15} + 3\frac{12}{15} = 7\frac{22}{15} = 8\frac{7}{15}$
- 5)  $6\frac{24}{32} + 9\frac{28}{32} = 15\frac{52}{32} = 15\frac{13}{8} = 16\frac{5}{8}$
- 6)  $\frac{12}{15} \div \frac{5}{15} = \frac{12 \div 5}{1} = \frac{12}{5} = 2\frac{2}{5}$
- 7)  $\frac{3}{5} \times \frac{3}{7} = \frac{9}{35}$
- 8)  $\frac{1}{4} \div \frac{3}{4} = \frac{1 \div 3}{1} = \frac{1}{3}$
- 9)  $\frac{31}{4}$
- 10)  $\frac{81}{8}$
- 11)  $\frac{91}{2}$
- 12)  $24 \div 4 = 6$  gal.
- 13)  $20 \times 4 = 80$  qts.
- 14)  $15 \div 2 = 7\frac{1}{2}$  qts.
- 15)  $315 \div 35 = 9$  ft.
- 16)  $9 \div 3 = 3$  yds.
- 17) no
- 18) 15: 3, 5, 15  
 $45: \underline{3}, \underline{5}, \underline{9}, \underline{15}, \underline{45}$   
 GCF = 15
- 19)  $\frac{3}{4}$  of 24 = 18 want to go home  
 $\frac{2}{3}$  of 18 = 12 have a ride  
 $18 - 12 = 6$  will have to walk
- 20) 30