

11D

- 1) yes
- 2) yes
- 3) no
- 4) $1, 2, 4, 7, 14, 28$
 $1, 2, 3, 6, 7, 14, 21, 42$
GCF = 14
- 5) $1, 2, 3, 6, 9, 18$
 $1, 3, 9, 27, 81$
GCF = 9
- 6) $\frac{1}{6}$
- 7) $\frac{8}{15}$
- 8) $\frac{6}{30}$
- 9) $\frac{28}{35} + \frac{5}{35} = \frac{28+5}{1} = \frac{28}{5}$ or $5\frac{3}{5}$
- 10) $\frac{15}{24} + \frac{8}{24} = \frac{15+8}{1} = \frac{15}{8}$ or $1\frac{7}{8}$
- 11) $\frac{24}{30} + \frac{5}{30} = \frac{24+5}{1} = \frac{24}{5}$ or $4\frac{4}{5}$
- 12) done
- 13) $9\frac{39}{51}$
- 14) 20
- 15) $\frac{1}{2} + \frac{1}{4} = \frac{4}{8} + \frac{2}{8} = \frac{6}{8}$ eaten
 $\frac{8}{8} - \frac{6}{8} = \frac{2}{8}$ left
- 16) $\frac{6}{30} + \frac{10}{30} = \frac{16}{30}$
- 17) $1/3$ of 36 = 12 girls
 $36 - 12 = 24$ boys
- 18) $\frac{4}{5} \times \frac{1}{2} = \frac{4}{10}$

11E

- 1) yes
- 2) no
- 3) $1, 5, 25$
 $1, 2, 3, 5, 6, 10, 15, 30$
GCF = 5
- 4) $1, 3, 5, 9, 15, 45$
 $1, 3, 9, 27$
GCF = 9
- 5) $\frac{14}{24}$
- 6) $\frac{3}{18}$
- 7) $\frac{15}{24}$
- 8) $\frac{20}{32} + \frac{8}{32} = \frac{20+8}{1} = \frac{20}{8}$ or $2\frac{4}{8}$
- 9) $\frac{36}{54} + \frac{9}{54} = \frac{36+9}{1} = 4$
- 10) $\frac{4}{8} + \frac{6}{8} = \frac{4+6}{1} = \frac{4}{6}$
- 11) $\frac{24}{56} < \frac{28}{56}$
- 12) $\frac{6}{15} > \frac{5}{15}$
- 13) $\frac{20}{36} < \frac{27}{36}$
- 14) 8
- 15) $9\frac{45}{74}$
- 16) $40\frac{10}{22}$
- 17) $25 \times 52 = 1,300$
- 18) $\frac{2}{8} + \frac{1}{8} + \frac{4}{8} = \frac{7}{8}$
 $\frac{8}{8} - \frac{7}{8} = \frac{1}{8}$
- 19) $\frac{24}{32} + \frac{4}{32} = \frac{24+4}{1} = 6$
- 20) $\frac{1}{12} \times \frac{1}{4} = \frac{1}{48}$

11F

- 1) no
- 2) no
- 3) $1, 2, 4, 8, 16$
 $1, 2, 17, 34$
GCF = 2
- 4) $1, 2, 3, 4, 6, 12$
 $1, 2, 4, 5, 8, 10, 20, 40$
GCF = 4
- 5) $5/18$
- 6) $3/20$
- 7) $12/21$
- 8) $\frac{3}{27} + \frac{9}{27} = \frac{3+9}{1} = \frac{3}{9}$
- 9) $\frac{15}{18} + \frac{12}{18} = \frac{15+12}{1} = \frac{15}{12}$ or $1\frac{3}{12}$
- 10) $\frac{16}{32} + \frac{8}{32} = \frac{16+8}{1} = 2$
- 11) $\frac{6}{12} < \frac{10}{12}$
- 12) $\frac{40}{80} = \frac{40}{80}$
- 13) $\frac{9}{108} < \frac{24}{108}$
- 14) 13
- 15) $5\frac{19}{79}$
- 16) 28
- 17) $14 + 14 + 14 + 14 = 56'$ perimeter
 $1/7$ of 56 = 8' for door openings
 $56' - 8' = 48'$ baseboard
- 18) yes
- 19) $\frac{4}{32} + \frac{8}{32} = \frac{12}{32}$ $\frac{3}{8}$
- 20) $1/8$ of \$48 = \$6
 $1/4$ of \$48 = \$12
 $\$6 + \$12 = \$18$
 $\$48 - \$18 = \$30$

12A

- 1) done
- 2) $\frac{2}{4} + \frac{2}{2} = \frac{1}{2}$
- 3) $\frac{18}{24} + \frac{6}{6} = \frac{3}{4}$
- 4) $\frac{8}{12} + \frac{4}{4} = \frac{2}{3}$
- 5) done
- 6) $\frac{3}{4}$
- 7) $\frac{1}{2}$
- 8) done
- 9) $1, 2, 4$
 $1, 2, 3, 4, 6, 8, 12, 24$
GCF = 4
 $\frac{4}{24} + \frac{4}{4} = \frac{1}{6}$
- 10) $1, 2, 3, 6$
 $1, 2, 3, 6, 9, 18$
GCF = 6
 $\frac{6}{18} + \frac{6}{6} = \frac{1}{3}$
- 11) $1, 2, 3, 6, 9, 18$
 $1, 2, 3, 5, 6, 10, 15, 30$
GCF = 6
 $\frac{18}{30} + \frac{6}{6} = \frac{3}{5}$

12B

- 1) $\frac{9}{12} \div \frac{3}{3} = \frac{3}{4}$
- 2) $\frac{4}{8} \div \frac{4}{4} = \frac{1}{2}$
- 3) $\frac{8}{10} \div \frac{2}{2} = \frac{4}{5}$
- 4) $\frac{25}{30} \div \frac{5}{5} = \frac{5}{6}$
- 5) $\frac{1}{4}$
- 6) $\frac{5}{6}$
- 7) $\frac{2}{3}$
- 8) 1, 3
1, 3, 5, 15
GCF = 3
 $\frac{3}{15} \div \frac{3}{3} = \frac{1}{5}$
- 9) 1, 2, 4, 8
1, 2, 3, 4, 6, 12
GCF = 4
 $\frac{8}{12} \div \frac{4}{4} = \frac{2}{3}$
- 10) 1, 3, 5, 15
1, 2, 3, 6, 9, 18
GCF = 3
 $\frac{15}{18} \div \frac{3}{3} = \frac{5}{6}$
- 11) 1, 2, 7, 14
1, 3, 7, 21
GCF = 7
 $\frac{14}{21} \div \frac{7}{7} = \frac{2}{3}$

12C

- 1) $\frac{10}{15} \div \frac{5}{5} = \frac{2}{3}$
- 2) $\frac{9}{15} \div \frac{3}{3} = \frac{3}{5}$
- 3) $\frac{9}{11}$
- 4) $\frac{5}{9}$
- 5) $\frac{7}{8}$
- 6) 1, 2, 5, 10
1, 3, 5, 15
GCF = 5
 $\frac{10}{15} \div \frac{5}{5} = \frac{2}{3}$
- 7) 1, 2, 4, 8, 16
1, 2, 3, 4, 6, 8, 12, 24
GCF = 8
 $\frac{16}{24} \div \frac{8}{8} = \frac{2}{3}$
- 8) $\frac{25}{30} \div \frac{5}{5} = \frac{5}{6}$
- 9) $\frac{6}{8} \div \frac{2}{2} = \frac{3}{4}$
- 10) $\frac{10}{16} \div \frac{2}{2} = \frac{5}{8}$
- 11) $\frac{18}{21} \div \frac{3}{3} = \frac{6}{7}$
- 12) $\frac{45}{50} \div \frac{5}{5} = \frac{9}{10}$
- 13) $\frac{27}{36} \div \frac{9}{9} = \frac{3}{4}$
- 14) $\frac{7}{14} \div \frac{7}{7} = \frac{1}{2}$
 $\frac{1}{2}$ of 56 = 28 people

12D

- 1) $\frac{12}{28} \div \frac{4}{4} = \frac{3}{7}$
- 2) $\frac{14}{49} \div \frac{7}{7} = \frac{2}{7}$
- 3) $\frac{35}{50} \div \frac{5}{5} = \frac{7}{10}$
- 4) yes
- 5) yes
- 6) $\frac{24}{32} \div \frac{4}{4} = \frac{28}{32} = \frac{7}{8}$
- 7) $\frac{5}{35} \div \frac{14}{14} = \frac{19}{35}$
- 8) $\frac{6}{48} \div \frac{6}{6} = \frac{1}{8}$
- 9) $\frac{4}{50} \div \frac{2}{2} = \frac{2}{25}$
- 10) $\frac{8}{32} \div \frac{20}{20} = \frac{8+20}{1} = \frac{8}{20} = \frac{2}{5}$
- 11) $\frac{6}{15} \div \frac{10}{15} = \frac{6+10}{1} = \frac{6}{10} = \frac{3}{5}$
- 12) 331,344
- 13) 477,184.
- 14) 4,984,308
- 15) $\frac{2}{4} \div \frac{2}{2} = \frac{1}{2}$
- 16) $\frac{4}{6} \div \frac{1}{6} = \frac{4+1}{1} = 4$
- 17) $\frac{3}{5} \times \frac{2}{3} = \frac{6}{15} = \frac{2}{5}$
- 18) $\frac{2}{3} \div \frac{1}{5} = \frac{10}{15} \div \frac{3}{15} = \frac{13}{15}$

12E

- 1) $\frac{24}{30} \div \frac{6}{6} = \frac{4}{5}$
- 2) $\frac{18}{28} \div \frac{2}{2} = \frac{9}{14}$
- 3) $\frac{15}{35} \div \frac{5}{5} = \frac{3}{7}$
- 4) no
- 5) no
- 6) $\frac{8}{16} \div \frac{6}{6} = \frac{14}{16} = \frac{7}{8}$
- 7) $\frac{20}{50} \div \frac{15}{15} = \frac{35}{50} = \frac{7}{10}$
- 8) $\frac{10}{24} = \frac{5}{12}$
- 9) $\frac{18}{32} = \frac{9}{16}$
- 10) $\frac{9}{54} \div \frac{30}{30} = \frac{9+30}{1} = \frac{9}{30} = \frac{3}{10}$
- 11) $\frac{4}{8} \div \frac{6}{8} = \frac{4+6}{1} = \frac{4}{6} = \frac{2}{3}$
- 12) 120,120
- 13) 1,893,888
- 14) 4,749,399
- 15) $\frac{5}{15} \div \frac{5}{5} = \frac{1}{3}$
- 16) $512 \times 150 = 76,800$
- 17) $\frac{2}{3} \div \frac{1}{5} = \frac{10}{15} \div \frac{3}{15} = \frac{13}{15}$
- 18) $360 \div 30 = 12$
- 19) $\frac{3}{4} \times \frac{1}{2} = \frac{3}{8}$
- 20) $\frac{3}{4} - \frac{3}{8} = \frac{24}{32} - \frac{12}{32} = \frac{12}{32} = \frac{3}{8}$ yd.