

Page 46

Questions should be answered using column addition or subtraction.

1. 83 499
2. 90 998
3. 61 398
4. 12 585
5. 12 491
6. 32 697
7. 73 356
8. 13 785

Think. Answers will vary.

Page 47

1. 3, 3; Prime factors for 36 = $2 \times 2 \times 3 \times 3$
2. 5, 5; Prime factors for 50 = $2 \times 5 \times 5$
3. 2, 7; Prime factors for 28 = $2 \times 2 \times 7$
4. 24; 2, 12 OR 4, 6; Prime factors for 48 = $2 \times 2 \times 2 \times 2 \times 3$
5. 2; 2, 14 OR 4, 7; Prime factors for 56 = $2 \times 2 \times 2 \times 7$
6. 2, 30; 2, 15 OR 3, 20; 2, 10 OR 3, 20; 4, 5; Prime factors for 60 = $2 \times 2 \times 3 \times 5$
7. $38 = 2 \times 19$
8. $18 = 2 \times 3 \times 3$
9. $51 = 3 \times 17$
10. $54 = 2 \times 3 \times 3 \times 3$
11. $57 = 3 \times 19$
12. $42 = 2 \times 3 \times 7$
13. $104 = 2 \times 2 \times 2 \times 13$
14. $70 = 2 \times 5 \times 7$
15. $144 = 2 \times 2 \times 2 \times 2 \times 3 \times 3$
16. $120 = 2 \times 2 \times 2 \times 3 \times 5$
17. $108 = 2 \times 2 \times 3 \times 3 \times 3$
18. $250 = 2 \times 5 \times 5 \times 5$

Think. Numbers that do not have 2 as a prime factor, for example, 9, 15 and 21. Numbers that only have 2 as a factor are in the sequence 2, 4, 8, 16, 32...

Page 48

Think. $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$ (or $\frac{2}{5}$), $\frac{1}{6}$ (or $\frac{2}{6}$), $\frac{1}{7}$ (or $\frac{2}{7}$ or $\frac{3}{7}$), $\frac{1}{8}$ (or $\frac{2}{8}$ or $\frac{3}{8}$), $\frac{1}{9}$ (or $\frac{2}{9}$, $\frac{3}{9}$ or $\frac{4}{9}$), $\frac{1}{10}$ (or $\frac{2}{10}$, $\frac{3}{10}$ or $\frac{4}{10}$)

1. $\frac{2}{3} > \frac{2}{6}$
2. $\frac{1}{3} < \frac{4}{9}$
3. $\frac{1}{2} < \frac{5}{8}$
4. $\frac{1}{4} < \frac{3}{8}$

5. $\frac{4}{5} > \frac{7}{10}$
6. $\frac{3}{4} < \frac{7}{8}$

Page 49

1. $\frac{6}{9} > \frac{4}{9}$
2. $\frac{8}{10} > \frac{3}{10}$
3. $\frac{5}{6} > \frac{4}{6}$
4. $\frac{3}{8} < \frac{4}{8}$
5. $\frac{6}{8} > \frac{5}{8}$
6. $\frac{3}{9} > \frac{2}{9}$
7. $\frac{7}{8} > \frac{6}{8}$
8. $\frac{7}{12} < \frac{9}{12}$
9. $\frac{10}{12} < \frac{11}{12}$
10. $\frac{8}{12} > \frac{7}{12}$

Think. Answers will vary, for example, $\frac{1}{2}$, $\frac{1}{6}$, $\frac{1}{3}$.

Page 50

1. $\frac{3}{8} + \frac{5}{8} = \frac{8}{8} = 1$
2. $\frac{3}{7} + \frac{2}{7} = \frac{5}{7}$
3. $\frac{3}{4} + \frac{3}{4} = \frac{6}{4} = 1\frac{1}{2}$
4. $\frac{7}{8} + \frac{5}{8} = \frac{12}{8} = 1\frac{1}{2}$
5. $\frac{4}{5} + \frac{3}{5} = \frac{7}{5} = 1\frac{2}{5}$
6. $\frac{2}{3} + \frac{2}{3} = \frac{4}{3} = 1\frac{1}{3}$
7. $\frac{2}{8} + \frac{1}{8} = \frac{3}{8}$
8. $\frac{6}{8} + \frac{1}{8} = \frac{7}{8}$
9. $\frac{5}{8} + \frac{2}{8} = \frac{7}{8}$
10. $\frac{7}{8} + \frac{4}{8} = \frac{11}{8} = 1\frac{3}{8}$
11. $\frac{2}{6} + \frac{1}{6} = \frac{3}{6} = \frac{1}{2}$
12. $\frac{4}{6} + \frac{1}{6} = \frac{5}{6}$
13. $\frac{5}{6} + \frac{2}{6} = \frac{7}{6} = 1\frac{1}{6}$
14. $\frac{4}{6} + \frac{4}{6} = \frac{8}{6} = 1\frac{1}{3}$

Think. Answers will vary, for example, $\frac{1}{3}$ and $\frac{1}{6}$.

Page 51

1. $\frac{2}{3} + \frac{1}{6} = \frac{5}{6}$
2. $\frac{3}{4} + \frac{1}{8} = \frac{7}{8}$
3. $\frac{2}{5} + \frac{3}{10} = \frac{7}{10}$
4. $\frac{1}{2} + \frac{3}{8} = \frac{7}{8}$
5. $\frac{1}{3} + \frac{1}{9} = \frac{4}{9}$
6. $\frac{7}{10} + \frac{1}{5} = \frac{9}{10}$
7. $\frac{1}{9} + \frac{2}{3} = \frac{7}{9}$
8. $\frac{2}{3} + \frac{5}{6} = \frac{9}{6} = 1\frac{1}{2}$
9. $\frac{5}{8} + \frac{3}{4} = \frac{11}{8} = 1\frac{3}{8}$
10. $\frac{1}{3} + \frac{7}{9} = \frac{10}{9} = 1\frac{1}{9}$
11. $\frac{3}{4} + \frac{5}{12} = \frac{14}{12}$ or $1\frac{1}{6}$
12. $\frac{2}{3} + \frac{4}{9} = \frac{10}{9} = 1\frac{1}{9}$
13. $\frac{7}{12} + \frac{2}{3} = \frac{15}{12}$ or $1\frac{1}{4}$

Think. Answers will vary.

Page 52

I. Answers will vary.

Page 53

1. $\frac{5}{6} - \frac{2}{3} = \frac{1}{6}$
2. $\frac{2}{3} - \frac{1}{6} = \frac{3}{6}$ or $\frac{1}{2}$
3. $\frac{1}{3} - \frac{1}{6} = \frac{1}{6}$
4. $\frac{7}{8} - \frac{3}{4} = \frac{1}{8}$
5. $\frac{5}{8} - \frac{1}{4} = \frac{3}{8}$
6. $\frac{7}{8} - \frac{1}{4} = \frac{5}{8}$
7. $\frac{9}{10} - \frac{1}{5} = \frac{7}{10}$
8. $\frac{7}{10} - \frac{2}{5} = \frac{3}{10}$
9. $\frac{4}{5} - \frac{3}{10} = \frac{5}{10} = \frac{1}{2}$
10. $\frac{2}{3} - \frac{1}{9} = \frac{5}{9}$
11. $\frac{8}{9} - \frac{2}{3} = \frac{2}{9}$
12. $\frac{7}{9} - \frac{1}{3} = \frac{4}{9}$
13. $\frac{1}{2} - \frac{1}{8} = \frac{3}{8}$
14. $\frac{1}{2} - \frac{1}{6} = \frac{2}{6} = \frac{1}{3}$
15. $\frac{1}{2} - \frac{3}{8} = \frac{1}{8}$

Think. Answers will vary.

Page 54

1. $\frac{1}{2} - \frac{1}{8} = \frac{3}{8}$
2. $\frac{1}{2} - \frac{1}{6} = \frac{2}{6} = \frac{1}{3}$
3. $\frac{1}{2} - \frac{1}{12} = \frac{5}{12}$
4. $\frac{7}{8} - \frac{1}{2} = \frac{3}{8}$
5. $\frac{7}{8} - \frac{1}{4} = \frac{5}{8}$
6. $\frac{7}{8} - \frac{3}{4} = \frac{1}{8}$
7. $\frac{5}{6} - \frac{2}{3} = \frac{1}{6}$
8. $\frac{5}{8} - \frac{1}{4} = \frac{3}{8}$
9. $\frac{2}{3} - \frac{1}{9} = \frac{5}{9}$
10. $\frac{9}{12} - \frac{1}{2} = \frac{3}{12} = \frac{1}{4}$
11. $\frac{5}{12} - \frac{1}{3} = \frac{1}{12}$
12. $\frac{7}{9} - \frac{1}{3} = \frac{4}{9}$
13. $\frac{3}{4} - \frac{5}{12} = \frac{4}{12} = \frac{1}{3}$
14. $\frac{11}{12} - \frac{2}{3} = \frac{3}{12} = \frac{1}{4}$
15. $\frac{9}{10} - \frac{1}{5} = \frac{7}{10}$

Think. Answers will vary, but might include changing denominators to 6 or 12.