Name _____ Class _____ Date _____

# Chapter 3 Answers

## Practice 3-1

**1.** yes **2.** no **3.** no **4.** yes **5.** yes
**6.** yes **7.** yes **8.** no **9.** 2, 3, 9
**10.** none **11.** 2, 5, 10 **12.** 5 **13.** 5
**14.** 2 **15.** 3, 9 **16.** 3, 5, 9 **17.** 2, 5, 10
**18.** none **19.** 2 **20.** 2, 5, 10 **21.** 2, 5, 10
**22.** 3, 9 **23.** 3, 5, 9 **24.** none **25.** 3
**26.** 5 **27.** 1 **28.** 6 **29.** 45
**30.** 18 **31.** 390,400 **32.** 600 **33.** 3 students

## Practice 3-2

**1.** 53, 59, 61, 67, 71, 73
**2.** prime **3.** composite **4.** composite
**5.** prime **6.** composite **7.** composite
**8.** prime **9.** composite **10.** prime
**11.** prime **12.** composite **13.** composite
**14–17.** Sample answers:
**14.** 4; 2; 2 **15.** 5; 3; 5 **16.** 4; 2; 2; 3; 7
**17.** 35; 2; 3; 5; 7 **18.** $2 \times 29$
**19.** $2 \times 2 \times 2 \times 3 \times 3$ **20.** $2 \times 2 \times 2 \times 5$
**21.** $2 \times 3 \times 5$ **22.** $2 \times 2 \times 2 \times 3 \times 5$
**23.** $2 \times 2 \times 5 \times 5$ **24.** $2 \times 2 \times 2 \times 2 \times 3 \times 3$
**25.** $2 \times 5 \times 31$ **26.** 1,540 **27.** 2,310
**28.** 884 **29.** 17,017
**30.** 4 ways; 2 groups of 16, 4 groups of 8, 8 groups of 4, 16 groups of 2

## Practice 3-3

**1.** 4 **2.** 9 **3.** 1 **4.** 17 **5.** 12
**6.** 6 **7.** 5 **8.** 5 **9.** 5 **10.** 25
**11.** 7 **12.** 3 **13.** 8 **14.** 5 **15.** 1
**16.** 5 **17.** 4 **18.** 9 **19.** 5 **20.** 3
**21.** 3 **22.** 24 **23.** 7 **24.** 29 **25.** 25
**26.** 10 **27.** 36 **28.** 2 **29.** 2 **30.** 15
**31.** 5 **32.** 50 **33.** 1,700 and 2,550
**34.** 958 and 1,437 **35.** 3,484 and 5, 226

## Practice 3-4

**1.** $\frac{1}{3}$; $\frac{4}{12}$; yes **2.** $\frac{1}{2}$; $\frac{3}{5}$; no **3.** $\frac{3}{4}$; $\frac{6}{10}$; no **4.** 2
**5.** 5 **6.** 6 **7.** 3 **8.** 2 **9.** 10
**10.** 15 **11.** 25 **12.** $\frac{6}{20}$; $\frac{9}{30}$ **13.** $\frac{14}{16}$; $\frac{21}{24}$ **14.** $\frac{10}{12}$; $\frac{15}{18}$
**15.** $\frac{6}{8}$; $\frac{9}{12}$ **16.** $\frac{3}{4}$; $\frac{6}{8}$ **17.** $\frac{2}{3}$; $\frac{4}{6}$ **18.** $\frac{1}{3}$; $\frac{3}{9}$ **19.** $\frac{1}{4}$; $\frac{2}{8}$
**20.** no; $\frac{3}{7}$ **21.** no; $\frac{2}{5}$ **22.** yes **23.** yes **24.** no; $\frac{17}{18}$
**25.** no; $\frac{1}{3}$ **26.** yes **27.** no; $\frac{5}{8}$ **28.** no; $\frac{1}{2}$ **29.** yes
**30.** yes **31.** no; $\frac{17}{22}$ **32.** $\frac{2}{8}$, $\frac{5}{20}$, $\frac{2}{5}$, $\frac{8}{20}$
**33.** $\frac{4}{5}$ **34.** $\frac{1}{4}$

## Practice 3-5

**1.** $2\frac{3}{4}$ **2.** $3\frac{5}{6}$ **3.** $4\frac{5}{8}$ **4.** $6\frac{2}{5}$ **5.** $\frac{15}{8}$
**6.** $\frac{11}{4}$ **7.** $\frac{22}{3}$ **8.** $\frac{26}{3}$ **9.** $\frac{15}{4}$ **10.** $\frac{17}{4}$
**11.** $\frac{35}{6}$ **12.** $\frac{19}{10}$ **13.** $\frac{19}{8}$ **14.** $\frac{39}{8}$ **15.** $\frac{13}{5}$
**16.** $\frac{13}{2}$ **17.** $\frac{47}{12}$ **18.** $\frac{31}{12}$ **19.** $\frac{79}{15}$ **20.** $\frac{37}{15}$
**21.** $7\frac{1}{2}$ **22.** $2\frac{2}{3}$ **23.** $2\frac{1}{2}$ **24.** $2\frac{1}{3}$ **25.** $1\frac{1}{10}$
**26.** $1\frac{1}{6}$ **27.** $1\frac{1}{8}$ **28.** $2\frac{1}{2}$ **29.** $2\frac{1}{4}$ **30.** $1\frac{4}{9}$
**31.** $1\frac{2}{3}$ **32.** $4\frac{1}{4}$ **33.** $3\frac{2}{5}$ **34.** $2\frac{5}{6}$ **35.** $2\frac{2}{5}$
**36.** $1\frac{1}{3}$ **37.** $\frac{33}{6}$ **38.** $\frac{123}{12}$

## Practice 3-6

**1.** 10 **2.** 6 **3.** 24 **4.** 12 **5.** 40
**6.** 30 **7.** 60 **8.** 24 **9.** 45 **10.** 30
**11.** 18 **12.** 18 **13.** 15 **14.** 20 **15.** 63
**16.** 28 **17.** 24 **18.** 24 **19.** 36 **20.** 36
**21.** 60 **22.** 120 **23.** 20 **24.** 30 **25.** 126
**26.** 105 **27.** 72 **28.** 168 **29.** 30 **30.** 120
**31.** 72 **32.** 72 **33.** 168 **34.** 336 **35.** 56
**36.** 162 **37.** 120 **38.** 240 **39.** 90 **40.** 180
**41.** 48 **42.** 80 **43.** 240 **44.** 300
**45.** 3 packages of hot dogs, 2 packages of buns

## Practice 3-7

**1.** $>$ **2.** $=$ **3.** $>$ **4.** $<$ **5.** $>$
**6.** $>$ **7.** $=$ **8.** $<$ **9.** $<$ **10.** $<$
**11.** $=$ **12.** $>$ **13.** $>$ **14.** $<$ **15.** $=$
**16.** $<$ **17.** $\frac{5}{6}, \frac{9}{10}, \frac{14}{15}$ **18.** $1\frac{7}{12}, 1\frac{5}{6}, 1\frac{7}{8}$
**19.** $\frac{9}{10}, \frac{11}{12}, \frac{14}{15}$ **20.** $2\frac{1}{4}, 3\frac{5}{6}, 3\frac{7}{8}$ **21.** $\frac{7}{30}, \frac{2}{3}, \frac{11}{15}, \frac{4}{5}$
**22.** $1\frac{3}{4}, 2\frac{1}{10}, 2\frac{1}{6}, 3\frac{7}{8}$ **23.** $\frac{5}{12}, \frac{17}{30}, \frac{3}{5}$
**24.** $1\frac{11}{18}, 1\frac{5}{6}, 1\frac{11}{12}, 2\frac{1}{6}$ **25.** $\frac{17}{20}, 1\frac{18}{25}, 2\frac{31}{36}$
**26.** $>$ **27.** $>$ **28.** $>$ **29.** $<$ **30.** $>$ **31.** $>$
**32.** $>$ **33.** $>$ **34.** $<$ **35.** $5\frac{1}{4}$ in., $5\frac{5}{16}$ in., $5\frac{3}{8}$ in., $5\frac{5}{8}$ in.

## Practice 3-8

**1.** 0.72; $\frac{18}{25}$ **2.** 0.9; $\frac{9}{10}$ **3.** 0.04; $\frac{1}{25}$ **4.** $\frac{3}{5}$ **5.** $1\frac{1}{4}$
**6.** $\frac{37}{50}$ **7.** $\frac{29}{100}$ **8.** $\frac{127}{200}$ **9.** $\frac{4}{5}$ **10.** $6\frac{4}{25}$
**11.** $\frac{19}{20}$ **12.** $\frac{129}{200}$ **13.** $\frac{391}{500}$ **14.** $\frac{493}{1{,}000}$ **15.** $\frac{379}{500}$
**16.** $0.8\overline{3}$ **17.** 0.875 **18.** 0.5625 **19.** 2.16 **20.** $0.08\overline{3}$
**21.** $1.2\overline{6}$ **22.** 0.09 **23.** $0.\overline{8}$ **24.** 0.28 **25.** 0.06
**26.** 0.008 **27.** $0.\overline{54}$ **28.** greater than
**29.** equal to **30.** greater than **31.** equal to
**32.** greater than **33.** equal to **34.** less than
**35.** less than **36.** less than **37.** true
**38.** true **39.** false **40.** false
**41.** true **42.** true

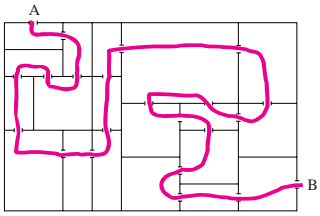
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Name _____ Class _____ Date _____

# Chapter 3 Answers (continued)

## Practice 3-9

**1.** 37 ham sandwiches **2.** 210 adult, 180 children
**3.** 252 **4.** 18 and 24 **5.** 29 and 41
**6.** Louise: orange; Bill: apple; Fran: banana
**7.** 12 cards **8.** Sample answer shown.



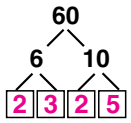

## Reteaching 3-1

**1.** 8; 26; 42; 218 **2.** 10; 25; 975; 1,005; 2, 340
**3.** 100; 60; 250 **4.** 51; 75; 12; 93; 153
**5.** 27; 36; 108; 126; 387 **6.** yes **7.** yes **8.** yes
**9.** yes **10.** yes **11.** no **12.** no **13.** yes
**14.** yes **15.** yes **16.** no **17.** no **18.** yes
**19.** no **20.** yes **21.** no **22.** no **23.** no
**24.** 2, 5, 10 **25.** 5 **26.** 2, 5, 10

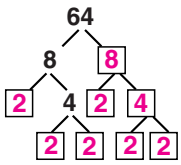
## Reteaching 3-2

**1.** composite **2.** prime **3.** prime
**4.** composite **5.** composite **6.** prime
**7.** prime **8.** composite **9.** prime
**10.** composite **11.** prime **12.** composite

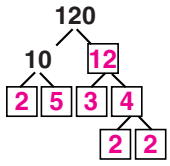
**13.**




**14.**




**15.**




**16.** $3 \times 7$ **17.** $2 \times 2 \times 2 \times 3$
**18.** $3 \times 3 \times 3 \times 3$ **19.** $2 \times 2 \times 2 \times 2 \times 2 \times 7$
**20.** $3 \times 3 \times 7$ **21.** $2 \times 2 \times 5 \times 5$
**22.** $1 \times 103$ **23.** $5 \times 31$

## Reteaching 3-3

**1.** 1, 2, 5, 10; 1, 3, 5, 15; 5 **2.** 1, 2, 7, 14; 1, 3, 7, 21; 7
**3.** 1, 3, 9; 1, 3, 7, 21; 3 **4.** 1, 2, 3, 4, 6, 12; 1, 13; 1
**5.** 1, 3, 5, 15; 1, 5, 25; 5 **6.** 1, 3, 5, 15; 1, 2, 3, 6, 9, 18; 3
**7.** 1, 2, 3, 4, 6, 9, 12, 18, 36; 1, 2, 3, 4, 6, 8, 12, 16, 24, 48; 12
**8.** 1, 2, 3, 4, 6, 8, 12, 24; 1, 2, 3, 5, 6, 10, 15, 30; 6
**9.** 3 **10.** 15 **11.** 8 **12.** 6 **13.** 10
**14.** 21 **15.** 4 **16.** 24 **17.** 30

## Reteaching 3-4

**1.** $\frac{10}{12}, \frac{15}{18}$ **2.** $\frac{6}{14}, \frac{9}{21}$ **3.** $\frac{14}{16}, \frac{21}{24}$ **4.** $\frac{6}{22}, \frac{9}{33}$
**5.** $\frac{6}{12}, \frac{1}{2}$ **6.** $\frac{2}{10}, \frac{3}{15}$ **7.** no; $\frac{4}{5}$ **8.** yes
**9.** no; $\frac{3}{7}$ **10.** yes **11.** no; $\frac{7}{15}$ **12.** no; $\frac{5}{14}$
**13.** $\frac{1}{2}$ **14.** $\frac{1}{20}$ **15.** $\frac{7}{8}$ **16.** $\frac{1}{3}$
**17.** $\frac{13}{17}$ **18.** $\frac{3}{4}$ **19.** $\frac{1}{7}$ **20.** $\frac{2}{3}$
**21.** $\frac{2}{15}$ **22.** $\frac{7}{33}$

## Reteaching 3-5

**1.** $\frac{16}{7}$ **2.** $\frac{23}{4}$ **3.** $\frac{13}{2}$ **4.** $\frac{53}{8}$ **5.** $\frac{34}{10}$
**6.** $\frac{23}{5}$ **7.** $\frac{28}{3}$ **8.** $\frac{24}{5}$ **9.** $\frac{15}{8}$ **10.** $\frac{27}{8}$
**11.** $\frac{17}{7}$ **12.** $\frac{49}{6}$ **13–18.** Check students' work.
**19.** $1\frac{1}{8}$ **20.** $3\frac{1}{2}$ **21.** $2\frac{2}{5}$ **22.** $2\frac{2}{3}$ **23.** $1\frac{3}{4}$
**24.** $1\frac{1}{5}$ **25.** $6\frac{2}{3}$ **26.** $3\frac{2}{5}$ **27.** $4\frac{1}{2}$ **28.** $1\frac{4}{5}$
**29.** $3\frac{5}{8}$ **30.** $2\frac{2}{3}$

## Reteaching 3-6

**1.** 4, 8, 12, 16, 20; 5, 10, 15, 20; 20
**2.** 6, 12, 18, 24, 30, 36, 42; 7, 14, 21, 28, 35, 42; 42
**3.** 9, 18, 27, 36, 45; 15, 30, 45; 45
**4.** 10, 20, 30, 40, 50; 25, 50; 50
**5.** 8, 16, 24; 24; 24 **6.** 8, 16, 24; 12, 24; 24
**7.** 4, 8, 12, 16, 20, 24, 28; 7, 14, 21, 28; 28
**8.** 15, 30, 45, 60, 75; 25, 50, 75; 75
**9.** 15, 30, 45, 60; 20, 40, 60; 60
**10.** 4, 8, 12, 16, 20, 24, 28, 32, 36; 9, 18, 27, 36; 36
**11.** 63 **12.** 24 **13.** 72 **14.** 200 **15.** 294 **16.** 12

## Reteaching 3-7

**1.** $<$ **2.** $<$ **3.** $>$ **4.** $>$ **5.** $=$
**6.** $>$ **7.** $<$ **8.** $=$ **9.** $>$ **10.** $>$
**11.** $<$ **12.** $<$ **13.** $\frac{1}{2}, \frac{5}{8}, \frac{3}{4}$ **14.** $\frac{5}{8}, \frac{2}{3}, \frac{5}{6}$
**15.** $\frac{5}{12}, \frac{1}{2}, \frac{2}{3}$ **16.** $\frac{7}{12}, \frac{3}{5}, \frac{2}{3}$ **17.** $\frac{3}{8}, \frac{1}{2}, \frac{3}{5}$ **18.** $\frac{3}{4}, \frac{13}{16}, \frac{7}{8}$
**19.** Eugene; $1\frac{1}{9} = 1\frac{4}{36}$; $1\frac{5}{12} = 1\frac{15}{36}$, $1\frac{15}{36} > 1\frac{4}{36}$

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