

Practice 26: p. 28

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|---------|----------|
| 1. 0131 | 6. 0817 |
| 2. 1529 | 7. 1757 |
| 3. 0824 | 8. 0123 |
| 4. 2232 | 9. 2125 |
| 5. 1245 | 10. 2303 |

Practice 27: p. 28

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|---------------|---------------------------|
| 1. 2:08 P.M. | 6. Midnight or 12:00 A.M. |
| 2. 12:13 A.M. | 7. 3:24 P.M. |
| 3. 10:01 A.M. | 8. 8:06 P.M. |
| 4. 2:52 P.M. | 9. 9:12 A.M. |
| 5. 12:37 A.M. | 10. 4:30 P.M. |

Critical Thinking with Whole Numbers: pp. 29–30

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|-------------------|--|
| 1. +, - | 9. 13, 15, 5, 13 |
| 2. ×, ÷ | 10. 87, 34, 196, 70 |
| 3. +, +, - | 11. $47 \div 3$ |
| 4. ×, -, + | 12. 129 |
| 5. ÷, × | 13. True |
| 6. 14, 20, 15, 15 | 14. False |
| 7. 86, 98, 38, 90 | 15. True, this is a divisibility question. |
| 8. 89, 96, 38, 96 | |

Whole Number Post-Test: pp. 30–31

- $724 + \underline{\hspace{2cm}} + 48 = 1,621$ becomes $1,621 - 724 - 48 = 849$
- $13 \times 3 = 39$ and $10 \times 9 = 90$ and $24 \times 3 = 72$ and $31 \times 2 = 62$. Then add $39 + 90 + 72 + 62 = 263.00$, 263 dollars or \$263.00
- $263 \div 39 = \$6.74$ or \$7.00
- $432 - 184 = 248$ hours
- $16 \times 3 = 48$ patients and $48 \div 3 = 16$
- $2 \times 21 = 42 + 1 \times 8 = 50$
- $2 + 4 + 5 + 2 + 1 + 3 = 17$
-

| | Quantity | Unit | Item | Per Unit Cost (in dollars) | Total Cost |
|----|----------|---------|----------------------|----------------------------|------------|
| a. | 1,500 | each | toothbrush | 1 | 1,500 |
| b. | 100 | each | floss (smooth) | 2 | 200 |
| c. | 75 | each | floss (glide) | 2 | 150 |
| d. | 1,000 | per 100 | infor-mation booklet | 10 | 100 |
| e. | 25 | each | poster | 15 | 375 |
| f. | | | | Subtotal | \$2,325.00 |

- $2,898 \div 3 = \$966.00$
- $12,674 - 6,894 = 5,780$
- $16 \times 7 = 112$. Think 112 is closer to 110 than to 120; thus 110 is the answer.

- $36 \times 14 = \$504$
- ten thousands
- $10:37 + 12:00 = 2237$
- 5

Unit 2: Fractions

Pre-Test: pp. 32–34

- $\frac{4}{30} = \frac{2 \times 2}{2 \times 15} = \frac{2}{15}$
- $4\frac{1}{4} + 2\frac{3}{5} = 4\frac{5}{20} + 2\frac{12}{20} = 6\frac{17}{20}$
- $42 - 13\frac{1}{6} = 28\frac{5}{6}$
- $3\frac{1}{2} \times 2\frac{1}{5} = \frac{7}{2} \times \frac{11}{5} = \frac{77}{10} = 7\frac{7}{10}$
- $3\frac{1}{3} \div 5 = \frac{10}{3} \div \frac{5}{1} = \frac{10}{3} \times \frac{1}{5} = \frac{10}{15} = \frac{2 \times 5}{3 \times 5} = \frac{2}{3}$
- $50^\circ\text{C} \times \frac{9}{5} = 10 \times \frac{9}{1} = 90 + 32 = 122^\circ\text{F}$
- $\frac{7}{8}, \frac{1}{8}, \frac{3}{4}, \frac{15}{16} \rightarrow \frac{14}{16}, \frac{2}{16}, \frac{12}{16}, \frac{15}{16} \rightarrow$ order: $\frac{15}{16}, \frac{7}{8}, \frac{3}{4}, \frac{1}{8}$
- $\frac{3}{1} \times 7 = \frac{1}{3} \div \frac{1}{4} \rightarrow \frac{1}{3} \times \frac{4}{1} = \frac{4}{3} \times \frac{7}{1} = \frac{28}{3} = 9\frac{1}{3}$
- $\frac{4}{200} = \frac{1}{4} \div \frac{200}{1} \rightarrow \frac{1}{4} \times \frac{1}{200} = \frac{1}{800}$
- A one-half tablet is 45 mg, which is less than 50 mg.
- $14\frac{22}{66} \rightarrow 14\frac{22}{66} = 14\frac{22 \times 1}{22 \times 3} = 14\frac{1}{3}$
- $7\frac{5}{12} \rightarrow 7 \times 12 + 5 = \frac{89}{12}$
- $200 \text{ mg per } 5 \text{ mL} = \frac{200 \text{ mg}}{5 \text{ mL}}$ or $\frac{40 \text{ mg}}{1 \text{ mL}}$
- Think: $3250 \text{ dollars} = \frac{1}{12}$. So, $3250 \times 12 = \$39000$.
- $\frac{4}{11} \times \frac{16}{48(12)} \times \frac{44(4)}{48(3)}$ Then this becomes $\frac{1}{1} \times \frac{1}{12(3)} \times \frac{4}{3}$ to become $\frac{1}{1} \times \frac{1}{3} \times \frac{1}{3} = \frac{1}{9}$

Practice 1: p. 37

- Seven parts to eight total parts
- One part to six total parts
- Three parts to five total parts
- Sixteen parts to twenty-one total parts

Practice 2: p. 38

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|------|------|
| 1. 6 | 3. 8 |
| 2. 4 | 4. 4 |

5. 15
6. 3
7. 36

8. 20
9. 54
10. 24

Practice 3: p. 40

1. $\frac{1}{4}$
2. $\frac{1}{4}$
3. $\frac{1}{2}$
4. $\frac{1}{3}$
5. $\frac{1}{4}$

6. $\frac{8}{9}$
7. $\frac{1}{2}$
8. $\frac{7}{10}$
9. $\frac{1}{3}$
10. $\frac{1}{51}$

Practice 4: p. 41

1. $14\frac{1}{2}$
2. $9\frac{3}{7}$
3. $4\frac{1}{6}$
4. $6\frac{9}{10}$
5. $3\frac{1}{4}$

6. $5\frac{7}{32}$
7. $2\frac{1}{9}$
8. $10\frac{3}{8}$
9. $6\frac{1}{2}$
10. $4\frac{11}{15}$

Practice 5: pp. 41–42

1. $\frac{25}{43}$
2. $\frac{7}{10}$
3. $\frac{1}{4}$

4. $\frac{7}{8}$
5. $\frac{1}{8}$

Practice 6: pp. 42–43

1. $8\frac{1}{3}$
2. $4\frac{4}{5}$
3. $5\frac{4}{5}$
4. $14\frac{6}{7}$
5. $9\frac{3}{7}$

6. $2\frac{1}{3}$
7. $2\frac{3}{8}$
8. 8
9. 1
10. $1\frac{5}{18}$

Practice 7: pp. 44–45

1. $\frac{5}{6}$
2. $1\frac{2}{5}$

3. $1\frac{3}{10}$
4. $\frac{5}{13}$

5. $\frac{7}{12}$
6. 1
7. $\frac{7}{13}$
8. $15\frac{5}{6}$
9. $22\frac{5}{6}$

10. 12
11. $\frac{4}{5}$
12. $1\frac{2}{7}$
13. 1
14. $11\frac{5}{6}$
15. $140\frac{1}{4}$

Practice 8: p. 46

1. 20
2. 16
3. 44
4. 45
5. 25

6. 49
7. 200
8. 150
9. 27
10. 18

Practice 9: p. 47

1. $\frac{17}{20}$
2. $1\frac{1}{6}$
3. $1\frac{1}{9}$
4. $1\frac{3}{10}$
5. $\frac{1}{2}$
6. $\frac{2}{5}$
7. $\frac{13}{21}$
8. $\frac{4}{5}$

9. $1\frac{1}{15}$
10. $1\frac{1}{4}$
11. $1\frac{2}{5}$
12. $12\frac{11}{12}$
13. $106\frac{8}{9}$
14. $13\frac{3}{5}$
15. $8\frac{7}{8}$

Practice 10: pp. 48–49

1. 20
2. 24
3. 96
4. 56
5. 45

6. 78
7. 36
8. 45
9. 30
10. 72

Practice 11: pp. 49–50

1. $9\frac{11}{12}$
2. $23\frac{8}{11}$
3. $13\frac{1}{2}$
4. $14\frac{1}{56}$
5. $6\frac{5}{7}$

6. $34\frac{19}{30}$
7. $18\frac{29}{30}$
8. $10\frac{1}{3}$
9. $18\frac{9}{10}$
10. $11\frac{11}{16}$

11. $16\frac{17}{27}$

12. $19\frac{1}{15}$

13. $39\frac{5}{12}$

14. $8\frac{7}{12}$

15. $13\frac{7}{15}$

Practice 12: p. 50

1. $121\frac{3}{4}$

2. $10\frac{5}{6}$

3. $1\frac{3}{16}$

Practice 13: p. 51

1. $\frac{4}{12}, \frac{1}{4}, \frac{2}{9}$

2. $\frac{8}{11}, \frac{5}{11}, \frac{9}{22}$

16. $11\frac{29}{33}$

17. $4\frac{7}{16}$

18. $11\frac{5}{6}$

19. $5\frac{1}{2}$

20. $156\frac{5}{17}$

4. $2\frac{1}{2}$

5. $3\frac{5}{6}$

3. $\frac{20}{50}, \frac{33}{100}, \frac{6}{25}$

4. $\frac{7}{8}, \frac{3}{4}, \frac{1}{2}, \frac{2}{16}$

Practice 14: pp. 52–53

1. $\frac{1}{9}$

2. $\frac{3}{8}$

3. $\frac{2}{11}$

4. $\frac{1}{4}$

5. $2\frac{1}{6}$

6. $5\frac{1}{2}$

7. $45\frac{1}{8}$

8. $6\frac{9}{35}$

9. $\frac{1}{2}$

10. $8\frac{1}{2}$

11. $\frac{1}{4}$

12. $\frac{1}{2}$

13. $12\frac{1}{5}$

14. 18

15. $31\frac{1}{9}$

16. $5\frac{5}{24}$

17. $124\frac{1}{12}$

18. $6\frac{1}{12}$

19. $12\frac{5}{33}$

20. $350\frac{26}{45}$

Practice 15: pp. 54–55

1. $10\frac{1}{6}$

2. $8\frac{2}{5}$

3. $9\frac{3}{4}$

4. $12\frac{4}{9}$

5. $14\frac{6}{13}$

6. $29\frac{7}{11}$

7. $5\frac{6}{7}$

8. $3\frac{5}{12}$

9. $10\frac{2}{5}$

10. $3\frac{3}{4}$

Practice 16: pp. 55–56

1. $7\frac{13}{20}$

2. $23\frac{9}{20}$

3. $19\frac{17}{30}$

4. $5\frac{7}{8}$

5. $5\frac{17}{22}$

6. $3\frac{11}{12}$

7. $111\frac{23}{30}$

8. $15\frac{13}{14}$

9. $31\frac{5}{8}$

10. $96\frac{1}{3}$

11. $16\frac{5}{6}$

12. $10\frac{11}{30}$

13. $76\frac{25}{36}$

14. $23\frac{2}{7}$

15. $6\frac{1}{2}$

16. $7\frac{5}{8}$

17. $13\frac{4}{7}$

18. $9\frac{3}{4}$

19. $9\frac{8}{9}$

20. $11\frac{3}{4}$

21. $4\frac{23}{30}$

22. $72\frac{5}{7}$

23. $190\frac{7}{8}$

24. $83\frac{7}{12}$

25. $44\frac{1}{16}$

Practice 17: pp. 56–57

1. $11\frac{1}{2}$

2. $2\frac{1}{2}$

3. $99\frac{1}{4}$

4. $26\frac{1}{2}$

5. $3\frac{1}{2}$

Practice 18: pp. 57–58

1. $\frac{1}{16}$

2. $\frac{2}{5}$

3. $\frac{28}{45}$

4. $\frac{4}{9}$

5. $\frac{3}{35}$

6. $\frac{1}{8}$

7. $\frac{4}{9}$

8. $\frac{1}{25}$

9. $\frac{13}{66}$

10. $\frac{1}{25}$

Practice 19: pp. 58–59

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|--------------------|--------------------|
| 1. $1\frac{1}{2}$ | 6. $5\frac{1}{3}$ |
| 2. $1\frac{1}{5}$ | 7. $11\frac{2}{3}$ |
| 3. $16\frac{1}{3}$ | 8. $33\frac{1}{3}$ |
| 4. $6\frac{6}{7}$ | 9. 4 |
| 5. $5\frac{3}{5}$ | 10. $4\frac{2}{5}$ |

Practice 20: pp. 60–61

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|-------------------|---------------------|
| 1. $1\frac{5}{7}$ | 7. $\frac{1}{4}$ |
| 2. $\frac{1}{10}$ | 8. $\frac{1}{12}$ |
| 3. $\frac{1}{4}$ | 9. $\frac{11}{96}$ |
| 4. $\frac{1}{12}$ | 10. $\frac{12}{65}$ |
| 5. $\frac{1}{20}$ | 11. $\frac{1}{24}$ |
| 6. $\frac{3}{11}$ | 12. $\frac{5}{16}$ |

Practice 21: p. 62

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|--------------------|--------------------|
| 1. $\frac{33}{4}$ | 6. $\frac{35}{8}$ |
| 2. $\frac{17}{3}$ | 7. $\frac{32}{9}$ |
| 3. $\frac{88}{5}$ | 8. $\frac{49}{4}$ |
| 4. $\frac{172}{7}$ | 9. $\frac{53}{12}$ |
| 5. $\frac{27}{12}$ | 10. $\frac{31}{3}$ |

Practice 22: p. 64

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|---------------------|----------------------|
| 1. $\frac{29}{84}$ | 6. $8\frac{37}{49}$ |
| 2. $3\frac{11}{15}$ | 7. $40\frac{1}{4}$ |
| 3. $\frac{21}{40}$ | 8. $2\frac{3}{4}$ |
| 4. $1\frac{7}{44}$ | 9. $3\frac{17}{20}$ |
| 5. $\frac{20}{27}$ | 10. $10\frac{7}{24}$ |

Practice 23: p. 64

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|-------------------|--------------------------|
| 1. 70 doses | 4. $5\frac{1}{3}$ ounces |
| 2. \$72.00 | 5. $18\frac{3}{4}$ cups |
| 3. 875 milligrams | |

Practice 24: pp. 66–67

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|--------------------|-----------------------|
| 1. $\frac{5}{7}$ | 12. $2\frac{11}{32}$ |
| 2. $\frac{3}{11}$ | 13. $2\frac{7}{9}$ |
| 3. $\frac{7}{24}$ | 14. $3\frac{18}{25}$ |
| 4. $\frac{35}{36}$ | 15. $4\frac{8}{9}$ |
| 5. 8 | 16. $1\frac{9}{20}$ |
| 6. 36 | 17. $\frac{31}{130}$ |
| 7. $\frac{1}{45}$ | 18. $2\frac{4}{9}$ |
| 8. 18 | 19. $1\frac{47}{105}$ |
| 9. $\frac{1}{120}$ | 20. 21 |
| 10. $4\frac{7}{9}$ | |
| 11. $3\frac{8}{9}$ | |

Practice 25: pp. 67–68

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|--------------------|---------------------------|
| 1. $9\frac{3}{20}$ | 4. $4\frac{1}{2}$ tablets |
| 2. 30 | 5. 10 |
| 3. \$13.30 | |

Practice 26: p. 69

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|--------|--------|
| 1. 68 | 5. 104 |
| 2. 95 | 6. 113 |
| 3. 77 | 7. 176 |
| 4. 140 | 8. 59 |

Practice 27: pp. 69–70

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|-------|-------|
| 1. 40 | 5. 15 |
| 2. 0 | 6. 55 |
| 3. 10 | 7. 30 |
| 4. 45 | 8. 50 |

Practice 28: p. 70

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|--------------------------|---------------------------|
| 1. -15°C | 6. 68°F |
| 2. 100°C | 7. 0°C |
| 3. 41°F | 8. 104°F |
| 4. 10°C | 9. 260°C |
| 5. 176°F | 10. 140°F |

Practice 29: pp. 71–72

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|----------------------|--------------------|
| 1. $\frac{3}{32}$ | 6. $1\frac{1}{8}$ |
| 2. $\frac{1}{800}$ | 7. $\frac{4}{5}$ |
| 3. $\frac{1}{15000}$ | 8. 2 |
| 4. 1000 | 9. $\frac{15}{16}$ |
| 5. $1\frac{1}{5}$ | 10. 10 |

Practice 30: pp. 72–73

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|-------|--------------------|
| 1. 5 | 4. 100 |
| 2. 40 | 5. 1 |
| 3. 12 | 6. $1\frac{9}{32}$ |

Practice 31: p. 74

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|------------------------------|---------------------------|
| 1. 14 quarts | 6. $43\frac{1}{2}$ feet |
| 2. $2\frac{1}{8}$ pints | 7. $58\frac{2}{3}$ ounces |
| 3. 124 ounces | 8. 364 ounces |
| 4. $16\frac{1}{2}$ teaspoons | 9. 162 inches |
| 5. 100 inches | 10. $21\frac{1}{3}$ cups |

Practice 32: p. 75

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|--|---------------------|
| 1. $3\frac{3}{4}$ per employee and $101\frac{1}{4}$ hours total | 3. $235\frac{5}{8}$ |
| 2. $34\frac{1}{12}$ | 4. less |
| | 5. 180 |

Critical Thinking with Fractions: pp. 76–78

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|--------------------|---------------------------|
| 1. $2\frac{1}{4}$ | 8. 11 |
| 2. $7\frac{1}{2}$ | 9. 22 |
| 3. $1\frac{1}{8}$ | 10. $\frac{5}{8}$ |
| 4. $3\frac{3}{4}$ | 11. $\frac{3}{4}$ |
| 5. $6\frac{5}{8}$ | 12. $\frac{5}{8}$ |
| 6. $8\frac{4}{7}$ | 13. $5\frac{1}{3}$ ounces |
| 7. $32\frac{1}{2}$ | 14. 1 ounce |
| | 15. 18 ounces |

Fraction Post-Test: pp. 79–80

- $\frac{6}{24} = \frac{6 \times 1}{6 \times 4} = \frac{1}{4}$
- $\frac{1}{6} = \frac{2}{12} = \frac{3}{18} = \frac{4}{24}$ and others

- $\frac{122}{11} = 122 \div 11 = 11\frac{1}{11}$
- $8\frac{1}{6} + 3\frac{3}{4} = 8\frac{2}{12} + 3\frac{9}{12} = 11\frac{11}{12}$
- $52 - 12\frac{1}{5} = 51\frac{5}{5} + 12\frac{1}{5} = 39\frac{4}{5}$
- $14\frac{1}{2} \times 2\frac{1}{8} = 14 \times 2 + 1 = \frac{29}{2}$ and
 $2 \times 8 + 1 = \frac{17}{8}$ Then $\frac{29}{2} \times \frac{17}{8} = \frac{493}{16}$, which
reduces to $30\frac{13}{16}$.
- $5\frac{2}{6} \div 12 = \frac{5 \times 6 + 2}{6} \div \frac{12}{1} = \frac{32}{6} \times \frac{1}{12} = \frac{32}{72}$
 $= \frac{8 \times 4}{8 \times 9} = \frac{4}{9}$
- $77^\circ\text{F} = \underline{\hspace{2cm}}^\circ\text{C} \rightarrow 77 - 32 = 45 \times \frac{5}{9}$
 $= 45^5 \times \frac{5}{9} = 25^\circ\text{C}$
- $\frac{3}{8} \frac{1}{3} \frac{1}{4} \frac{2}{12} \rightarrow \frac{9}{24} \frac{8}{24} \frac{6}{24} \frac{4}{24} \rightarrow \frac{2}{12} \frac{1}{4} \frac{1}{3} \frac{3}{8}$
- $\frac{1}{4} \div \frac{1}{8} \rightarrow \frac{1}{4} \times \frac{8}{1} = \frac{8}{4} \rightarrow 2 \times 25 = 50$
- Get a common denominator and compare:
 $\frac{1}{8} = \frac{3}{24}$ and $\frac{1}{6} = \frac{4}{24}$ The nurse will give less than
the dose on hand.
- $\frac{20}{60}$ reduces to $\frac{1}{3}$ of an hour.
- $\frac{5}{8}$ becomes $\frac{15}{24}$
- $\frac{10}{16}$ reduces to $\frac{5}{8}$
- $7\frac{1}{3} + 6\frac{1}{2} + 6\frac{1}{2} + 5\frac{7}{8} = 7\frac{8}{24} + 6\frac{2}{24} + 6\frac{2}{24} + 5\frac{21}{24}$
 $= 26\frac{5}{24}$

Unit 3: Decimals

Pre-Test: pp. 81–82

- 3.87 = three and eighty-seven hundredths
- $32.575 \rightarrow 32.\underline{5}75$. Notice that 5 is to the right of 7, so the answer rounds to 32.58.
- 0.7805
- $21.0 + 15.8 + 1.4 + 2.0 = 40.2$
- $12.00 - 0.89 = 11.11$
- $32.05 \times 7.2 = 230.76$
- $749.7 \div 21 = 35.7$
- $32.85 \times 10 = 328.5$



