Answer Key

GRADE 5 • MODULE 4

Multiplication and Division of Fractions and Decimal Fractions

Lesson 1

Problem Set

1. Answers will vary.
2. Answers will vary.
3. Answers will vary
4. Answers will vary.
5. a. Answers will vary.
   b. Answers will vary.
   c. Answers will vary.

Exit Ticket

1. Line plot drawn correctly.
2. Answers will vary.

Homework

1. Line plot drawn correctly.
   a. Location 6
   b. Locations 1, 7, and 10
   c. $\frac{1}{8}$ in
   d. 5 in

Lesson 2

Problem Set

1. a. Answer provided.
   b. 12 fourths ÷ 4 = 3 fourths = $\frac{3}{4}$
   c. 24 fourths ÷ 4 = 6 fourths = $\frac{6}{4} = 1\frac{2}{4} = 1\frac{1}{2}$
2. 3 ÷ 2 = 6 halves ÷ 2 = 3 halves = $\frac{3}{2} = 1\frac{1}{2}$
3. a. Solutions illustrated correctly.
   b. Answers will vary.
4. a. $\frac{2}{3}$
   b. $\frac{15}{8}$
   c. $\frac{11}{4}$
   d. 3 ÷ 2
   e. 9 ÷ 13
   f. 4 ÷ 3

Exit Ticket

1. a. 27 ninths ÷ 9 = 3 ninths = $\frac{3}{9} = \frac{1}{3}$; picture representing 3 ÷ 9 drawn
   b. 12 thirds ÷ 3 = 4 thirds = $\frac{4}{3} = 1\frac{1}{3}$; picture representing 4 ÷ 3 drawn
2. a. $\frac{21}{8}$
   b. 7 ÷ 4
   c. $\frac{4}{9}$
   d. 9 ÷ 7

Homework

1. a. 4 fourths ÷ 4 = 1 fourth = $\frac{1}{4}$; picture representing 1 ÷ 4 drawn
   b. 15 fifths ÷ 5 = 3 fifths = $\frac{3}{5}$; picture representing 3 ÷ 5 drawn
   c. 28 fourths ÷ 4 = 7 fourths = $\frac{7}{4} = 1\frac{3}{4}$; picture representing 7 ÷ 4 drawn
2. 4 ÷ 6 = 24 sixths ÷ 6 = 4 sixths = $\frac{4}{6} = \frac{2}{3}$; picture representing 4 ÷ 6 drawn
3. a. $\frac{2}{7}$
   b. $\frac{39}{5}$
   c. $\frac{13}{3}$
   d. 9 ÷ 5
   e. 19 ÷ 28
   f. 8 ÷ 5

Lesson 3

Problem Set

1. a. Answer provided
   b. 6 halves; 3 halves; $\frac{3}{2}$, algorithm answered correctly
   c. 6, 4; $\frac{6}{4}$; $1\frac{1}{2}$; algorithm answered correctly
   d. 10 halves ÷ 2 = 5 halves; algorithm answered correctly
2. a. $\frac{3}{4}$; answers will vary.
   b. 3; answers will vary.
3. a. 4; answers will vary.
   b. $\frac{4}{5}$

Exit Ticket

9 ÷ 4; 36 fourths ÷ 4 = 9 fourths; $\frac{9}{4} = 2\frac{1}{4}$; picture drawn representing 9 wholes *or* 36 fourths, divided by 4

Homework

1. a. Answer provided
   b. 7 ÷ 5; 35 fifths ÷ 5 = 7 fifths; $\frac{7}{5}$
   c. 7 ÷ 2; 14 halves ÷ 2 = 7 halves; $\frac{7}{2}$; $3\frac{1}{2}$
   d. 28 fourths ÷ 4 = 7 fourths; $1\frac{3}{4}$
2. a. 3; explanations will vary.
   b. 7
3. a. 4; explanations will vary.
   b. $\frac{1}{2}$; 2

Lesson 4

Problem Set

1. a. Answer provided
   b. $\frac{2}{3}$; tape diagram drawn correctly
   c. $1\frac{2}{5}$; tape diagram drawn correctly
   d. $2\frac{4}{5}$; tape diagram drawn correctly
2. **a.** Answer provided
   b. $\frac{6}{7}$; algorithm completed correctly
   c. 55,10; 5 and 6; algorithm completed correctly
   d. 32,40; 0 and 1; algorithm completed correctly
3. a. 80 cents
   b. 20 cents; explanations will vary
4. a. $\frac{1}{4}$
   b. $1\frac{1}{4}$; tape diagram drawn correctly
   c. 60 oz

Exit Ticket

$2\frac{1}{4}$; tape diagram drawn correctly

Homework

1. a. Answer provided
   b. $\frac{4}{5}$; tape diagram drawn correctly
   c. $\frac{8}{5}$; tape diagram drawn correctly
   d. $\frac{14}{3}$; tape diagram drawn correctly
2. a. Answer provided
   b. 3, 4; algorithm completed correctly
   c. 7, 2; 3 and 4; althorithm completed correctly
   d. 81, 90; 0 and 1; algorithm completed correctly
3. a. $\frac{2}{5}$ yd; tape diagram drawn correctly
   b. $1\frac{1}{5}$ ft; tape diagram drawn correctly
4. $4\frac{2}{3}$ lb
5. $\frac{2}{3}$ lb

Lesson 5

Problem Set

1. $\frac{2}{5}$ yd
2. $\frac{4}{6}$ or $\frac{2}{3}$ pt
3. $\frac{6}{4}$ or $1\frac{1}{2}$; tape diagram drawn showing 6 ÷ 4
4. a. $\frac{4}{8}$ or $\frac{1}{2}$
   b. $\frac{1}{8}$
5. $\frac{5}{40}$ or $\frac{1}{8}$
6. a. $\frac{4}{10}$ or $\frac{2}{5}$ L
   b. 0.4 L
   c. 400 mL
7. a. $4\frac{2}{3}$ mi; tape diagram drawn showing 14 ÷ 3
   b. 14 mi

Exit Ticket

a. $\frac{5}{9}$ yd; tape diagram drawn showing 5 ÷ 9

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

Homework

1. a. $3\frac{2}{4}$ or $3\frac{1}{2}$ gal
   b. $10\frac{1}{2}$ gal; explanations will vary.
   c. $7\frac{2}{4}$ or $7\frac{1}{2}$ sq. ft
   d. $\frac{1}{4}$
2. a. $\frac{1}{4}$; models will vary.
   b. $\frac{3}{4}$ ft
   c. 9 in
3. $7.50

Lesson 6

Sprint

Side A

1.	$\frac{1}{2}$	12.	$1\frac{2}{5}$	23.	3	34.	$2\frac{1}{6}$
2.	$\frac{1}{3}$	13.	$1\frac{4}{5}$	24.	$3\frac{1}{2}$	35.	$4\frac{2}{7}$
3.	$\frac{1}{8}$	14.	$\frac{2}{3}$	25.	1	36.	$3\frac{3}{8}$
4.	1	15.	1	26.	$1\frac{1}{8}$	37.	$5\frac{4}{9}$
5.	$\frac{2}{3}$	16.	$1\frac{1}{4}$	27.	$1\frac{7}{8}$	38.	$4\frac{5}{6}$
6.	1	17.	$1\frac{3}{4}$	28.	2	39.	$6\frac{5}{7}$
7.	$\frac{3}{4}$	18.	2	29.	$2\frac{3}{4}$	40.	$6\frac{5}{8}$
8.	$\frac{3}{10}$	19.	$2\frac{1}{2}$	30.	$7\frac{1}{2}$	41.	$7\frac{4}{9}$
9.	$\frac{3}{5}$	20.	2	31.	$4\frac{4}{5}$	42.	$9\frac{5}{6}$
10.	1	21.	$2\frac{1}{5}$	32.	$4\frac{1}{4}$	43.	$7\frac{7}{8}$
11.	$1\frac{1}{5}$	22.	$2\frac{3}{5}$	33.	$6\frac{2}{3}$	44.	$7\frac{8}{9}$

Side B

1.	$\frac{1}{3}$	12.	1	23.	3	34.	$3\frac{1}{6}$
2.	$\frac{1}{4}$	13.	$1\frac{1}{2}$	24.	$3\frac{1}{5}$	35.	$4\frac{3}{7}$
3.	$\frac{1}{10}$	14.	$\frac{4}{5}$	25.	1	36.	$4\frac{5}{8}$
4.	1	15.	1	26.	$1\frac{1}{6}$	37.	$5\frac{5}{9}$
5.	$\frac{5}{6}$	16.	$1\frac{1}{10}$	27.	$1\frac{5}{6}$	38.	$2\frac{5}{6}$
6.	1	17.	$1\frac{3}{10}$	28.	2	39.	$6\frac{6}{7}$
7.	$\frac{3}{7}$	18.	2	29.	$2\frac{2}{3}$	40.	$6\frac{3}{8}$
8.	$\frac{3}{10}$	19.	$2\frac{1}{5}$	30.	$6\frac{1}{2}$	41.	$7\frac{5}{9}$
9.	$\frac{3}{4}$	20.	$2\frac{3}{5}$	31.	$4\frac{3}{5}$	42.	$8\frac{5}{6}$
10.	1	21.	2	32.	$3\frac{3}{4}$	43.	$7\frac{5}{8}$
11.	$1\frac{1}{4}$	22.	$2\frac{1}{2}$	33.	$4\frac{3}{4}$	44.	$7\frac{7}{9}$

Problem Set

1. a. 3; 6; 9
   b. 5; 10; 15
   c. 4; 16; 5
   d. 3; 9; 12; 18; 21
2. 8; drawings will vary.
3. Explanations and pictures will vary.
4. 12
5. 15 ten dollar bills or $150

Exit Ticket

1. a. 4
   b. 12
2. 12

Homework

1. a. 4; 8; 12
   b. 5; 10; 15; 20
   c. 7; 14; 21; 28; 35; 42
2. 12; drawings will vary.
3. Explanations and pictures will vary.
4. 8
5. a. 24 or 2 dozen
   b. $45

Lesson 7

Problem Set

1. Tape diagram drawn accurately
   a. 6
   b. 12
   c. 18
   d. 9
   e. 20
   f. 20
   g. $2\frac{1}{4}$
   h. $4\frac{4}{5}$
   i. 15
   j. 32

2. Tape diagram drawn accurately
   a. 36
   b. 140 degrees
   c. $72
   d. $3\frac{1}{5}$ more ounces

Exit Ticket

Tape diagram drawn accurately

a. 18
b. 50
c. 16

Homework

1. Tape diagram drawn accurately
   a. 6
   b. 12
   c. 12
   d. 6
   e. 21
   f. 36
   g. $10\frac{1}{3}$
   h. 8
   i. $6\frac{1}{4}$
   j. $18\frac{3}{4}$
   k. 36
   l. 35

2. Tape diagram drawn accurately
   a. 22
   b. 150 degrees
   c. $4\frac{2}{8}$ or $4\frac{1}{4}$ more ounces
   d. 84

Lesson 8

Problem Set

1. Explanations will vary.
2. Modeling will vary.
   a. $\frac{21}{4}$
   b. $\frac{28}{5}$
   c. $\frac{12}{7}$
3. Modeling will vary.
   a. 4
   b. 6
4. Modeling will vary.
   a. 6
   b. 27
   c. 39
   d. 36
5. a. 30
   b. 45
   c. 300
   d. 80

Exit Ticket

Modeling will vary.

a. 10

b. 15

Homework

1. Modeling will vary.
   a. $\frac{15}{3}$ or 5
   b. $\frac{26}{5}$
   c. $\frac{27}{4}$
2. Modeling will vary.
   a. 12
   b. 16
   c. 44
   d. 42
   e. 15
   f. $7\frac{1}{2}$
   g. $23\frac{1}{3}$
3. a. 20
   b. 48
   c. 700
   d. 60

Lesson 9

Problem Set

1. Explanations will vary.
   a. Answer provided.
   b. 4
   c. 10
   d. 80
   e. 40
   f. 27
2. 3
3. a. 14
   b. 12
   c. 2
   d. Mr. Paul; 2
4. $12\frac{1}{2}$

Exit Ticket

1. $\frac{3}{5}$
2. a. 8
   b. 40
   c. 10

Homework

1. Explanations will vary.
   a. Answer provided
   b. 2
   c. 9
   d. 60
   e. 25
   f. 24
2. 9
3. a. 12
   b. 10
   c. 2
   d. Mr. Phillips; 6
4. $6\frac{1}{4}; 3\frac{3}{4}$

Lesson 10

Problem Set

1. $5\frac{2}{3}$; expressions will vary.
   $3\frac{3}{10}$; expressions will vary.
2. a. 6; expressions will vary.
   b. $2\frac{2}{3}$; expressions will vary.
   c. $3\frac{1}{4}$; expressions will vary.
   d. 14; expressions will vary.
   e. $26\frac{2}{3}$; expressions will vary.
   f. $10\frac{2}{3}$; expressions will vary.
3. $(4 \times 7) \div 5$, $4 \times \frac{7}{5}$, and $7 \times \frac{4}{5}$ circled; explanations will vary.
4. a. >; explanations will vary.
   b. >; explanations will vary.
   c. >; explanations will vary.
5. a. $\frac{1}{2}$ gallon; expressions will vary.
   b. $3\frac{3}{4}$ gallons; expressions will vary.
   c. $1\frac{1}{2}$ gallons; expressions will vary.
   d. Data accurately displayed on line plot
   e. 17 gallons

Exit Ticket

1. a. Expressions will vary.
   b. Expressions will vary.
2. 3; expressions will vary.

Homework

1. $5\frac{1}{4}$; expressions will vary.
   $6\frac{10}{21}$; expressions will vary.
2. $(6 \times 3) \div 8$ and $\frac{3}{8} \times 6$ circled;
   explanations will vary.
3. a. 5; expressions will vary.
   b. 3; expressions will vary.
   c. $7\frac{14}{15}$; expressions will vary.
   d. 4; expressions will vary.
   e. $39\frac{1}{5}$; expressions will vary.
   f. 36; expressions will vary.
4. a. >; explanations will vary.
   b. >; explanations will vary.
   c. >; explanations will vary.
5. a. $2\frac{1}{4}$; expressions will vary.
   b. $1\frac{3}{4}$; expressions will vary.
   c. $3\frac{1}{4}$; expressions will vary.
   d. Line plot accurately drawn
   e. $19\frac{3}{8}$; expressions will vary.

Lesson 11

Problem Set

1. $\frac{3}{8}$
2. 8 pt
3. 68 oz
4. $2\frac{1}{2}$
5. Answers will vary.

Exit Ticket

$3\frac{1}{3}$; tape diagram drawn accurately

Homework

1. 25 min
2. $4\frac{3}{4}$
3. $17\frac{3}{4}$
4. $3\frac{1}{2}$
5. Answers will vary.

Lesson 12

Problem Set

1. a. $\frac{3}{4}$
   b. 17
2. 16
3. Lillian; 26 min; bonus: $\frac{13}{30}$ hour
4. 2; story problems will vary.
5. 6; story problems will vary.
6. 12 in Mr. Smith's class; 10 in Mrs. Jacob's class

Exit Ticket

6

Homework

1. 16 minutes
2. $\frac{21}{56}$ or $\frac{3}{8}$
3. 12
4. Jacob; bonus: $\frac{1}{6}$ minute
5. 4; story problems will vary.
6. 4; story problems will vary.

Lesson 13

Problem Set

1. Accurate area model drawn

   a. Answer provided

   b. $\frac{1}{6}; \frac{1}{2} \times \frac{1}{3} = \frac{1}{6}$

   c. $\frac{1}{12}; \frac{1}{4} \times \frac{1}{3} = \frac{1}{12}$

   d. $\frac{1}{16}; \frac{1}{4} \times \frac{1}{4} = \frac{1}{16}$

   e. $\frac{1}{12}; \frac{1}{2} \times \frac{1}{6} = \frac{1}{12}$

2. $3 \times \frac{1}{4} = \frac{3}{4}; \frac{1}{3} \times \frac{1}{4} = \frac{1}{12}$; comparison statements will vary.

3. $\frac{1}{6}$; accurate area model drawn

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

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

Exit Ticket

1. $\frac{1}{3} \times \frac{1}{3} = \frac{1}{9}$; accurate area model drawn

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

Homework

1. Accurate area model drawn

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

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

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

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

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

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

2. $\frac{1}{10}$; accurate area model drawn

3. $\frac{1}{6}$; accurate area model drawn

4. $\frac{1}{20}$; accurate model drawn

Lesson 14

Sprint

Side A[1]

1.	2 fifths	12.	2	23.	60 sixths	34.	90 sixths
2.	3 fifths	13.	4 halves	24.	15 thirds	35.	24 fourths
3.	4 fifths	14.	2	25.	30 thirds	36.	72 fourths
4.	4 fifths	15.	6 thirds	26.	30 thirds	37.	32 eighths
5.	3 eighths	16.	2	27.	15 fifths	38.	96 eighths
6.	5 eighths	17.	10 fifths	28.	30 fifths	39.	160 eighths
7.	7 eighths	18.	9 thirds	29.	60 fifths	40.	224 eighths
8.	7 eighths	19.	18 thirds	30.	45 fifths	41.	270 ninths
9.	3 tenths	20.	8 fourths	31.	45 fifths	42.	441 ninths
10.	7 tenths	21.	24 fourths	32.	18 sixths	43.	168 sevenths
11.	7 tenths	22.	12 sixths	33.	90 sixths	44.	294 sevenths

Side B[1]

1.	2 sevenths	12.	2	23.	24 fourths	34.	120 sixths
2.	3 sevenths	13.	10 fifths	24.	15 fifths	35.	20 fourths
3.	4 sevenths	14.	3	25.	30 fifths	36.	60 fourths
4.	4 sevenths	15.	9 thirds	26.	60 fifths	37.	24 eighths
5.	3 tenths	16.	5	27.	45 fifths	38.	72 eighths
6.	7 tenths	17.	10 halves	28.	45 fifths	39.	120 eighths
7.	9 tenths	18.	6 thirds	29.	15 thirds	40.	168 eighths
8.	9 tenths	19.	12 thirds	30.	30 thirds	41.	315 ninths
9.	3 eighths	20.	12 sixths	31.	30 thirds	42.	378 ninths
10.	5 eighths	21.	60 sixths	32.	24 sixths	43.	147 sevenths
11.	5 eighths	22.	8 fourths	33.	120 sixths	44.	336 sevenths

[1] Note: Answers are given here in unit form for ease of reading. Students may answer in standard form.

Problem Set

1. Accurate model drawn
   a. 3; 1; $\frac{1}{3} \times \frac{3}{4} = \frac{3}{12} = \frac{1}{4}$
   b. 4; 2; $\frac{1}{2} \times \frac{4}{5} = \frac{4}{10} = \frac{2}{5}$
   c. $\frac{1}{2}$
   d. $\frac{1}{3}$
   e. $\frac{3}{10}$
   f. $\frac{1}{6}$
2. $\frac{1}{8}$; accurate tape diagram drawn
3. a. $\frac{1}{5}$
   b. $\frac{1}{5}$
4. Explanations may vary; accurate drawing shown to support explanation

Exit Ticket

1. $\frac{1}{7}$; $\frac{1}{3} \times \frac{3}{7} = \frac{3}{21} = \frac{1}{7}$; accurate model drawn
2. $\frac{3}{8}$

Homework

1. Accurate model drawn
   a. 2; 1
   b. 4; 2
   c. $\frac{1}{5}$
   d. $\frac{3}{8}$
   e. $\frac{4}{15}$
   f. $\frac{4}{15}$
2. $\frac{1}{7}$; accurate model drawn
3. a. $\frac{1}{5}$
   b. $\frac{1}{15}$
4. a. All grandchildren received the same amount; explanations may vary; accurate drawing shown to support response.
   b. $\frac{1}{5}$

Lesson 15

Problem Set

1. a. Answer provided
   b. $\frac{3}{4} \times \frac{4}{5} = \frac{3}{5}$; accurate model drawn
   c. $\frac{2}{5} \times \frac{2}{3} = \frac{4}{15}$; accurate model drawn
   d. $\frac{4}{5} \times \frac{2}{3} = \frac{8}{15}$; accurate model drawn
   e. $\frac{3}{4} \times \frac{2}{3} = \frac{1}{2}$; accurate model drawn

2. a. $\frac{5}{8}$
   b. $\frac{1}{2}$
   c. $\frac{4}{7}$
   d. $\frac{2}{15}$

3. $\frac{4}{10}$ or $\frac{2}{5}$

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

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

Exit Ticket

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

2. $\frac{3}{20}$

Homework

1. a. $\frac{2}{3} \times \frac{3}{4} = \frac{1}{2}$; accurate model drawn
   b. $\frac{2}{5} \times \frac{3}{4} = \frac{3}{10}$; accurate model drawn
   c. $\frac{2}{5} \times \frac{4}{5} = \frac{8}{25}$; accurate model drawn
   d. $\frac{4}{5} \times \frac{3}{4} = \frac{3}{5}$; accurate model drawn
2. a. $\frac{1}{4}$
   b. $\frac{3}{5}$
   c. $\frac{25}{48}$
   d. $\frac{5}{16}$
   e. $\frac{16}{27}$
   f. $\frac{2}{21}$
3. a. $\frac{1}{2}$
   b. 250 mL
4. $\frac{1}{2}$
5. a. $\frac{1}{10}$
   b. $\frac{1}{2}$ pound

Lesson 16

Problem Set

1. 5
2. 12
3. 90
4. 36
5. $40
6. 12
7. $12

Exit Ticket

84 boats

Homework

1. 8; accurate tape diagram drawn
2. Accurate tape diagrams drawn for each
   a. 180
   b. 60
   c. 313
   d. Less than half
   e. 126

Lesson 17

Problem Set

1. a. Answer provided
   b. $0.4 \times 0.3 = 0.12$; accurate area model
   c. $0.1 \times 1.4 = 0.14$; accurate area model
   d. $0.6 \times 1.7 = 1.02$; accurate area model
2. a. 3.5
   b. 0.35; $\frac{35}{100}$; 0.35
   c. 0.035; 5, 7; $\frac{35}{1000}$; 0.035
   d. 1.8
   e. 0.18
   f. 0.018
   g. 4.8
   h. 0.48
   i. 0.048
3. 0.14 m
4. a. 1.5 mi
   b. 1.75 mi

Exit Ticket

1. $0.1 \times 1.2 = 0.12$; accurate area model
2. a. 4.5
   b. 0.45
   c. 0.045

Homework

1. a. Answer provided
   b. $0.6 \times 0.2 = 0.12$; accurate area model
   c. $0.1 \times 1.6 = 0.16$; accurate area model
   d. $0.6 \times 1.9 = 1.14$; accurate area model
2. a. 2.4
   b. 0.24; $\frac{24}{100}$; 0.24
   c. 0.024; 4, 6; $\frac{24}{1000}$; 0.024
   d. 2.1
   e. 0.21
   f. 0.021
   g. 6.5
   h. 0.65
   i. 0.065
3. 0.51 L
4. a. 1.44 mi
   b. 3.46 mi

Lesson 18

Sprint

Side A[1]

1.	1 fourth	12.	4 fifteenths	23.	10 fifteenths	34.	15 twentieths
2.	1 sixth	13.	1 twelfth	24.	15 tenths	35.	18 twentieths
3.	1 eighth	14.	2 twelfths	25.	1 ninth	36.	6 twentieths
4.	1 fourteenth	15.	6 twelfths	26.	2 ninths	37.	1 forty-ninth
5.	1 fourteenth	16.	1 eighteenth	27.	4 ninths	38.	3 fortieths
6.	1 sixth	17.	5 eighteenths	28.	6 sixths	39.	5 twenty-fourths
7.	1 ninth	18.	10 eighteenths	29.	8 ninths	40.	9 sixteenths
8.	1 eighteenth	19.	10 twelfths	30.	10 ninths	41.	12 eighteenths
9.	1 fifteenth	20.	1 twenty-fifth	31.	9 tenths	42.	18 eighths
10.	1 fifteenth	21.	4 twenty-fifths	32.	3 twentieths	43.	49 seventy-seconds
11.	2 fifteenths	22.	6 twenty-fifths	33.	12 twentieths	44.	63 ninety-sixths

Side B[1]

1.	1 sixth	12.	4 fifteenths	23.	15 twentieths	34.	10 fifteenths
2.	1 eighth	13.	1 twelfth	24.	20 fifteenths	35.	12 fifteenths
3.	1 tenth	14.	3 twelfths	25.	1 sixteenth	36.	6 fifteenths
4.	1 eighteenth	15.	6 twelfths	26.	3 sixteenths	37.	1 eighty-first
5.	1 eighteenth	16.	1 eighteenth	27.	9 sixteenths	38.	3 fortieths
6.	1 tenth	17.	2 eighteenths	28.	12 twelfths	39.	3 twenty-fourths
7.	1 fifteenth	18.	10 eighteenths	29.	15 sixteenths	40.	4 ninths
8.	1 thirty-fifth	19.	9 eighths	30.	18 sixteenths	41.	24 thirty-seconds
9.	1 fifteenth	20.	1 twenty-fifths	31.	16 eighteenths	42.	12 ninths
10.	1 fifteenth	21.	9 twenty-fifths	32.	2 fifteenths	43.	48 sixty-thirds
11.	2 fifteenths	22.	12 twenty-fifths	33.	8 fifteenths	44.	56 eighty-fourths

[1] Note: Answers are written in unit form for ease of reading, but students may express answers in standard form.

Problem Set

1. a. Answer provided
   b. 2.07; 207 hundredths
   c. 18.48; 1,848 hundredths
   d. 4.62; 462 hundredths
2. a. Answer provided
   b. 2.133; 2,133 thousandths
   c. 16.968; 16,968 thousandths
   d. 0.462; 462 thousandths
3. a. 1.92
   b. 3.84; 384 hundredths
   c. 19.944; 19,944 thousandths
   d. 26.25; 2,625 hundredths
4. $4.44
5. a. 15.75 sq. m
   b. 39.375 sq. m

Exit Ticket

a. 4.48
b. 1.12
c. 8.484
d. 0.924

Homework

1. a. Answer provided
   b. 2.64
   c. 14.08
   d. 3.52
2. a. Answer provided
   b. 2.345; 2,345 thousandths
   c. 12.928; 12,928 thousandths
   d. 0.704; 704 thousandths
3. a. 1.92
   b. 4.83; 483 hundredths
   c. 25.194; 25,194 thousandths
   d. 29.25; 2,925 hundredths
4. $19.25
5. a. 70.2 sq. m
   b. 175.5 sq. m

Lesson 19

Problem Set

1. a. Answer provided
   b. $1\frac{1}{3}; \frac{1}{3}; \frac{4}{3}$
   c. $\frac{7}{12}$
   d. $1\frac{1}{12}$
   e. $\frac{5}{16}$
   f. $1\frac{2}{16}$

2. a. $\frac{24}{36}$ yd
   b. $4

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

4. $\frac{14}{16}$ gal

Exit Ticket

a. $\frac{5}{12}$
b. $1\frac{1}{12}$
c. $\frac{9}{16}$
d. $1\frac{2}{16}$

Homework

1. a. Answer provided
   b. $2; \frac{1}{3}; \frac{6}{3}$
   c. $\frac{5}{12}$
   d. $1\frac{2}{12}$
   e. $\frac{7}{16}$
   f. $1\frac{4}{16}$
   g. $\frac{1}{2}$
   h. 2

2. a. $\frac{12}{16}$ lb
   b. $3

3. $1\frac{5}{16}$ lb

4. 3 gal

Lesson 20

Problem Set

1. a. Answer provided
   b. $\frac{3}{8}$
   c. 56
   d. $4\frac{3}{4}$
   e. 216
   f. $1\frac{2}{9}$
2. $4\frac{1}{2}$ t
3. 37 qt
4. $15\frac{5}{12}$ yd

Exit Ticket

a. 26
b. $1\frac{1}{4}$
c. $1\frac{1}{4}$
d. 44

Homework

1. a. Answer provided
   b. $\frac{5}{12}$
   c. 46
   d. $3\frac{3}{4}$
   e. 258
   f. $2\frac{3}{4}$
2. $2\frac{3}{4}$ min
3. $\frac{1}{4}$ lb
4. Yes, because the package weighs 15 lb

Lesson 21

Sprint

Side A

1.	6	12.	0.15	23.	1.2	34.	21
2.	0.6	13.	14	24.	0.12	35.	0.24
3.	0.06	14.	1.4	25.	0.012	36.	24
4.	9	15.	0.14	26.	0.012	37.	4.2
5.	0.9	16.	12	27.	35	38.	0.49
6.	0.09	17.	1.2	28.	3.5	39.	0.048
7.	8	18.	1.2	29.	0.35	40.	0.054
8.	0.8	19.	0.12	30.	0.035	41.	4.8
9.	0.08	20.	0.012	31.	0.035	42.	0.63
10.	15	21.	0.012	32.	16	43.	0.064
11.	1.5	22.	12	33.	1.8	44.	0.072

Side B

1.	8	12.	0.12	23.	1.6	34.	24
2.	0.8	13.	18	24.	0.16	35.	0.27
3.	0.08	14.	1.8	25.	0.016	36.	32
4.	6	15.	0.18	26.	0.016	37.	4.2
5.	0.6	16.	15	27.	45	38.	0.36
6.	0.06	17.	1.5	28.	4.5	39.	0.048
7.	9	18.	1.5	29.	0.45	40.	0.054
8.	0.9	19.	0.15	30.	0.045	41.	4.8
9.	0.09	20.	0.015	31.	0.045	42.	0.63
10.	12	21.	0.015	32.	12	43.	0.049
11.	1.2	22.	16	33.	1.4	44.	0.072

Problem Set

1. a. Answer provided
   b. $\frac{7}{7}$
   c. $\frac{5}{5}$
   d. Answers will vary.

2. a. $\frac{25}{100} = 0.25$
   b. $\frac{75}{100} = 0.75$
   c. $\frac{1}{5} \times \frac{20}{20} = \frac{20}{100} = 0.20$
   d. $\frac{4}{5} \times \frac{20}{20} = \frac{80}{100} = 0.80$
   e. $\frac{1}{20} \times \frac{5}{5} = \frac{5}{100} = 0.05$
   f. $\frac{27}{20} \times \frac{5}{5} = \frac{135}{100} = 1.35$
   g. $\frac{7}{4} \times \frac{25}{25} = \frac{175}{100} = 1.75$
   h. $\frac{8}{5} \times \frac{20}{20} = \frac{160}{100} = 1.60$
   i. $\frac{24}{25} \times \frac{4}{4} = \frac{96}{100} = 0.96$
   j. $\frac{93}{50} \times \frac{2}{2} = \frac{186}{100} = 1.86$
   k. $2\frac{6}{25} \times \frac{4}{4} = 2\frac{24}{100} = 2.24$
   l. $3\frac{31}{50} \times \frac{2}{2} = 3\frac{62}{100} = 3.62$

3. No; answers will vary.

4. Answers will vary.

5. $\frac{1}{8} = \frac{1}{2 \times 2 \times 2} \times \frac{5 \times 5 \times 5}{5 \times 5 \times 5} = \frac{5 \times 5 \times 5}{(2\times5) \times (2\times5) \times (2\times5)} = \frac{25}{1000} = 0.125$; $\frac{1}{4} = 0.25 = 0.250 = 250$ thousandths; $\frac{1}{8}$ is half of $\frac{1}{4}$, and half of 250 thousandths is 125 thousandths, so $\frac{1}{8} = 0.125$

Exit Ticket

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

2. a. $\frac{1}{4} \times \frac{25}{25} = \frac{25}{100} = 0.25$
   b. $\frac{2}{5} \times \frac{2}{2} = \frac{4}{10} = 0.40$
   c. $\frac{3}{25} \times \frac{4}{4} = \frac{12}{100} = 0.12$
   d. $\frac{5}{20} \times \frac{5}{5} = \frac{25}{100} = 0.25$

Homework

1. a. $\frac{3}{9}$
   b. $\frac{7}{7}$
   c. $\frac{5}{5}; \frac{25}{10}$
   d. Answers will vary.

2. a. $\frac{75}{100} = 0.75$
   b. $\frac{25}{100} = 0.25$
   c. $\frac{2}{5} \times \frac{2}{2} = \frac{4}{10} = 0.4$
   d. $\frac{3}{5} \times \frac{2}{2} = \frac{6}{10} = 0.6$
   e. $\frac{3}{20} \times \frac{5}{5} = \frac{15}{100} = 0.15$
   f. $\frac{25}{20} \times \frac{5}{5} = \frac{125}{100} = 1.25$
   g. $\frac{23}{25} \times \frac{4}{4} = \frac{92}{100} = 0.92$
   h. $\frac{89}{50} \times \frac{2}{2} = \frac{178}{100} = 1.78$
   i. $3\frac{11}{25} \times \frac{4}{4} = 3\frac{44}{100} = 3.44$
   j. $5\frac{41}{50} \times \frac{2}{2} = 5\frac{82}{100} = 5.82$

3. $\frac{6}{8} = \frac{3}{4} \times \frac{25}{25} = \frac{75}{100} = 0.75$

4. Answers will vary.

5. $\frac{3}{4} \times \frac{25}{25} = \frac{75}{100} = 0.75$; \$0.75 - \$0.44 = \$0.31; 31 cents

Lesson 22

Problem Set

1. a. $\frac{1}{2} \times 8 = 4$; $\frac{1}{2}$ circled, 8 boxed; 4
   b. $8 \times \frac{1}{2} = 4$; 8 circled, $\frac{1}{2}$ boxed; 4
2. a. Accurate tape diagram shown
   b. Accurate tape diagram shown
3. a. Any number less than 4
   b. Any number less than 7
   c. 5
4. a. Any fraction greater than 1; answers will vary.
   b. Any fraction less than 1; answers will vary
5. Answers will vary.
6. 25.5 in
   6 in by 3 in; 14 in by 16 in

Exit Ticket

a. Any number greater than 3; answers will vary.
b. Any number less than 8; answers will vary.
c. 2; answers will vary.

Homework

1. a. $\frac{1}{3} \times 6 = 2$; $\frac{1}{3}$ circled, 6 boxed; 2
   b. $6 \times \frac{1}{3} = 2$; 6 circled, $\frac{1}{3}$ boxed; 2
2. a. Accurate tape diagram shown
   b. Accurate tape diagram shown
3. a. Any number greater than 3; answers will vary.
   b. Any number less than 6; answers will vary.
   c. 5
4. a. Any fraction greater than 1; answers will vary.
   b. Any fraction less than 1; answers will vary.
5. a. Any number less than $\frac{1}{3}$
   b. Explanations will vary.
6. 17 yd
7. 2 in by 3 in; 6 in by 4 in

Lesson 23

Problem Set

1. a. 1.00
   b. 1.021
   c. 0.989
2. a. Less: 602 × 0.489, 0.3 × 0.069, 0.2 × 0.1
   Greater: 13.89 × 1.004, 102.03 × 4.015, 0.72 × 1.24
   b. Answers will vary.
3. a. Is slightly less than; explanations will vary.
   b. Is slightly more than; explanations will vary.
   c. Is a lot less than; explanations will vary.
   d. Is slightly more than; explanations will vary.
   e. Is slightly less than; explanations will vary.
4. Dhakir's is longest; Carson's is shortest; explanations will vary.
5. Greater than 1; examples will vary.
   Less than 1; examples will vary.

Exit Ticket

1. a. 0.898
   b. 1.00
   c. 1.009
2. Slightly less; explanations will vary.

Homework

1. a. Less: 828 × 0.921, 0.05 × 0.1
   Greater: 12.5 × 1.989, 321.46 × 1.26, 0.007 × 1.02, 2.16 × 1.11
   b. Explanations will vary.
2. a. Is slightly less than; explanations will vary.
   b. Is slightly more than; explanations will vary.
   c. Is a lot less than; explanations will vary.
   d. Is slightly more than; explanations will vary.
   e. Is slightly less than; explanations will vary.
3. Kayla, Jonathan, Rachel; explanations will vary.
4. a. Greater than 1; examples will vary.
   b. Less than 1; examples will vary.

Lesson 24

Problem Set

1. 2.5 mL
2. $\frac{21}{40}$ or 0.525 L
3. 20.25 min
4. 4,590.72 m
5. 20
6. $266

Exit Ticket

1. 3.725 kg
2. 10

Homework

1. 14.375 lb
2. 0.225 cm
3. 38
4. $215,942.65
5. 108
6. $142.60

Lesson 25

Problem Set

1. a. 8; 2; 8; 8
   b. 8; 4; 8; 8
   c. 15; 3; 15; 15
   d. 15; 5; 15; 15
2. Accurate check shown for each
   a. 10
   b. 6
   c. 20
   d. 6
   e. 16
   f. 42
   g. 24
   h. 36
3. 20
4. a. 18
   b. 60
   c. 32
5. 12 gal

Exit Ticket

1. a. 10; 2; 10; 10
   b. 16; 4; 16, 4; 16
2. Yes

Homework

1. a. 9; 3; 9, 3; 9
   b. 12; 4; 12, 3; 12
   c. 12; 3; 12, 4; 12
   d. 20; 4; 20, 5; 20
2. Accurate check shown for each
   a. 8
   b. 12
   c. 20
   d. 40
   e. 18
   f. 18
   g. 30
   h. 60
3. 24
4. 24 bags of nuts, 20 bags of cherries, and 24 bags of dried fruit

Lesson 26

Problem Set

1. Model or tape diagram drawn for each
   a. $\frac{1}{6}$
   b. $\frac{1}{12}$
   c. $\frac{1}{8}$
   d. $\frac{1}{12}$
2. Accurate check shown for each
   a. $\frac{1}{14}$
   b. $\frac{1}{18}$
   c. $\frac{1}{20}$
   d. $\frac{1}{20}$
   e. $\frac{1}{10}$
   f. $\frac{1}{18}$
   g. $\frac{1}{16}$
   h. $\frac{1}{100}$
3. $\frac{1}{4}$; picture drawn
4. a. $\frac{1}{16}$ gal
   b. 1 c
5. a. $\frac{1}{12}$
   b. $28.80

Exit Ticket

1. Model or tape diagram drawn for each
   a. $\frac{1}{8}$
   b. $\frac{1}{40}$
2. $\frac{1}{12}$

Homework

1. Model or tape diagram drawn for each
   a. $\frac{1}{8}$
   b. $\frac{1}{18}$
   c. $\frac{1}{12}$
   d. $\frac{1}{10}$
2. Accurate check shown for each
   a. $\frac{1}{20}$
   b. $\frac{1}{40}$
   c. $\frac{1}{15}$
   d. $\frac{1}{15}$
   e. $\frac{1}{32}$
   f. $\frac{1}{21}$
   g. $\frac{1}{50}$
   h. $\frac{1}{100}$
3. $\frac{1}{16}$ mile
4. a. $\frac{2}{15}$
   b. 105 pages

Lesson 27

Problem Set

1. 12; accurate model shown
2. $\frac{1}{12}$; accurate model shown
3. a. $\frac{1}{20}$ m; accurate model shown
   b. 5 cm
4. a. $\frac{1}{20}$ t; accurate model shown
   b. 100 lb
5. a. 30 sixths
   b. 6 in
6. a. $\frac{1}{16}$
   b. 48 oz
   c. $3\frac{15}{16}$ c

Exit Ticket

1. 12 fourths; accurate model shown
2. $\frac{1}{8}$; accurate model shown

Homework

1. 32; accurate model shown
2. $\frac{1}{24}$; accurate model shown
3. a. $\frac{1}{20}$ L; accurate model shown
   b. 50 mL
4. a. 20 fifths
   b. 20 cm
5. a. $\frac{1}{12}$
   b. 72 oz
   c. 3 lb

Lesson 28

Problem Set

1. Answers will vary; 20
2. Answers will vary; $\frac{1}{20}$
3. a. Answers will vary; 6
   b. Answers will vary; $\frac{1}{12}$
   c. Answers will vary; $\frac{1}{12}$
   d. Answers will vary; 15

Exit Ticket

a. Answers will vary; 8

b. Answers will vary; $\frac{1}{8}$

Homework

1. Answers will vary; 14
2. Answers will vary; $\frac{1}{9}$ lb
3. a. Answers will vary; 8
   b. Answers will vary; $\frac{1}{8}$
   c. Answers will vary; $\frac{1}{15}$
   d. Answers will vary; 30

Lesson 29

Problem Set

1. a. $5 \div \frac{1}{10} = 50; 10; 50$
   b. $8 \div \frac{1}{10} = 80; 10; 80$
   c. $5.2 \div \frac{1}{10} = 52; 50; 2; 52$
   d. $8.7 \div \frac{1}{10} = 87; 80; 7; 87$
   e. $5 \div \frac{1}{100} = 500; 100; 500$
   f. $8 \div \frac{1}{100} = 800; 100; 800$
   g. $5.2 \div \frac{1}{100} = 520; 500; 20; 520$
   h. $8.7 \div \frac{1}{100} = 870; 800; 70; 870$

2. a. 60
   b. 180
   c. 600
   d. 17
   e. 3,100
   f. 1,100
   g. 1,250
   h. 374
   i. 1,250
3. 46
4. Cheryl; answers will vary.
5. 20

Exit Ticket

1. 83; 830
2. 2,800; 280
3. 1,509
4. 2,674
5. 63,298

Homework

1. a. $9 \div \frac{1}{10} = 90$; 10; 90
   b. $6 \div \frac{1}{10} = 60$; 10; 60
   c. $3.6 \div \frac{1}{10} = 36$; 30; 6; 36
   d. $12.8 \div \frac{1}{10} = 128$; 120; 8; 128
   e. $3 \div \frac{1}{100} = 300$; 100; 300
   f. $7 \div \frac{1}{100} = 700$; 100; 700
   g. $4.7 \div \frac{1}{100} = 470$; 400; 70; 470
   h. $11.3 \div \frac{1}{100} = 1{,}130$; 1,100; 30; 1,130

2. a. 20
   b. 230
   c. 500
   d. 72
   e. 5,100
   f. 310
   g. 2,310
   h. 437
   i. 2,450
3. 1,260
4. Geraldine; answers will vary.
5. $132.64

Lesson 30

Sprint

Side A

1.	$\frac{1}{4}$	12.	35	23.	16	34.	18
2.	$\frac{1}{6}$	13.	$\frac{1}{35}$	24.	$\frac{1}{9}$	35.	36
3.	$\frac{1}{8}$	14.	$\frac{1}{6}$	25.	$\frac{2}{9}$	36.	49
4.	$\frac{1}{14}$	15.	6	26.	$\frac{1}{8}$	37.	64
5.	14	16.	$\frac{1}{8}$	27.	$\frac{3}{8}$	38.	81
6.	12	17.	8	28.	$\frac{1}{10}$	39.	$\frac{1}{56}$
7.	10	18.	$\frac{1}{10}$	29.	$\frac{3}{10}$	40.	72
8.	6	19.	10	30.	$\frac{1}{12}$	41.	$\frac{1}{56}$
9.	10	20.	12	31.	$\frac{5}{12}$	42.	42
10.	15	21.	$\frac{1}{12}$	32.	$\frac{5}{18}$	43.	63
11.	20	22.	$\frac{1}{16}$	33.	$\frac{1}{18}$	44.	$\frac{1}{72}$

Side B

1.	$\frac{1}{4}$	12.	14	23.	9	34.	30
2.	$\frac{1}{15}$	13.	$\frac{1}{14}$	24.	$\frac{1}{16}$	35.	24
3.	$\frac{1}{20}$	14.	$\frac{1}{8}$	25.	$\frac{3}{16}$	36.	42
4.	$\frac{1}{35}$	15.	8	26.	$\frac{1}{9}$	37.	56
5.	35	16.	$\frac{1}{6}$	27.	$\frac{2}{9}$	38.	72
6.	30	17.	6	28.	$\frac{1}{12}$	39.	$\frac{1}{64}$
7.	25	18.	$\frac{1}{4}$	29.	$\frac{5}{12}$	40.	81
8.	15	19.	4	30.	$\frac{1}{25}$	41.	$\frac{1}{72}$
9.	4	20.	12	31.	$\frac{3}{25}$	42.	49
10.	6	21.	$\frac{1}{12}$	32.	$\frac{3}{20}$	43.	54
11.	8	22.	$\frac{1}{9}$	33.	$\frac{1}{30}$	44.	$\frac{1}{48}$

Problem Set

1. a. Answer provided.
   b. 90
   c. $\frac{3.5}{0.5}$; 7
   d. $\frac{3.5}{0.05}$; 70
   e. $\frac{4.2}{0.7}$; 6
   f. $\frac{0.42}{0.07}$; 6
   g. $\frac{10.8}{0.9}$; 12
   h. $\frac{1.08}{0.09}$; 12
   i. $\frac{3.6}{1.2}$; 3
   j. $\frac{0.36}{0.12}$; 3
   k. $\frac{17.5}{2.5}$; 7
   l. $\frac{1.75}{0.25}$; 7
2. Answers will vary.
3. a. 12
   b. 6
4. 83
5. 3

Exit Ticket

a. $\frac{3.2}{0.8}$; 4
b. $\frac{3.2}{0.08}$; 40
c. $\frac{7.2}{0.9}$; 8
d. $\frac{0.72}{0.09}$; 8

Homework

1. a. 3
   b. 30
   c. $\frac{4.8}{0.6}$; 8
   d. $\frac{0.48}{0.06}$; 8
   e. $\frac{8.4}{0.7}$; 12
   f. $\frac{0.84}{0.07}$; 12
   g. $\frac{4.5}{0.15}$; 3
   h. $\frac{0.45}{0.15}$; 3
   i. $\frac{14.4}{1.2}$; 12
   j. $\frac{1.44}{0.12}$; 12

2. Leann is incorrect; answers will vary

3. a. 8
   b. 16

4. 15

Lesson 31

Problem Set

1. a. $53.2 \div 0.4 \approx \frac{520}{4} = 130$; 133
   b. $1.52 \div 0.8 \approx \frac{16}{8} = 2$; 1.9
2. a. $9.42 \div 0.03 \approx \frac{900}{3} = 300$; 314
   b. $39.36 \div 0.96 \approx \frac{40}{1} = 40$; 41
3. a. 154
   b. $\frac{316}{4}$; 79
   c. $\frac{23.1}{3}$; 7.7
   d. $\frac{1560}{24}$; 65
4. a. 27
   b. 21
5. 6

Exit Ticket

1. $6.39 \div 0.09 \approx \frac{630}{9} = 70$; $639 \div 9 = 71$
2. $82.14 \div 0.6 \approx \frac{8400}{60} = 140$; $8214 \div 60 = 136.9$

Homework

1. a. $61.6 \div 0.8 \approx \frac{640}{8} = 80$; 77
   b. $5.74 \div 0.7 \approx \frac{56}{7} = 8$; 8.2
2. a. $4.74 \div 0.06 \approx \frac{480}{6} = 80$; 79
   b. $19.44 \div 0.54 \approx \frac{2000}{50} = 40$; 36
3. a. 64
   b. $\frac{752}{8}$; 94
   c. $\frac{124.5}{5}$; 24.9
   d. $\frac{560}{16}$; 35
4. 54 green; 36 purple
5. 14

Lesson 32

Problem Set

1. $(3 + 2) \div \frac{1}{3}$ circled
2. $\frac{28}{\frac{4}{5} - \frac{7}{10}}$ and $28 \div (\frac{4}{5} - \frac{7}{10})$ circled
3. Answers will vary.
4. 3(a); explanations will vary.
5. Answers will vary.
6. 5(a); explanations will vary.
7. a. 12
   b. $\frac{5}{6}$
   c. $\frac{1}{12}$
   d. $\frac{1}{2}$
   e. $\frac{3}{40}$
   f. 12
8. a. $\frac{2}{3} \times 20 - 5$
   b. $\frac{1}{3} \times (20 - 5)$

Exit Ticket

1. Answers will vary.
2. a. Answers will vary.
   b. Answers will vary.
3. 2(b); explanations will vary.

Homework

1. $(7 - 4) \div \frac{1}{5}$ circled.
2. $42 \div (\frac{2}{3} + \frac{3}{4})$ and $\frac{42}{\frac{2}{3} + \frac{3}{4}}$ circled.
3. Answers will vary.
4. 3(a); explanations will vary.
5. a. 30
   b. $1\frac{1}{5}$
   c. $\frac{1}{100}$
   d. $\frac{2}{5}$
   e. 400
6. a. Answers will vary.
   b. $32 - 5 - \frac{1}{3}(32 - 5)$ circled.

Lesson 33

Sprint

Side A

1.	1	12.	1,000	23.	50	34.	325
2.	10	13.	2,000	24.	5	35.	5
3.	20	14.	8,000	25.	0.5	36.	5
4.	70	15.	10	26.	0.8	37.	50
5.	10	16.	100	27.	400	38.	90
6.	100	17.	200	28.	4,000	39.	400
7.	200	18.	900	29.	4,700	40.	80
8.	600	19.	500	30.	5,900	41.	70
9.	1	20.	5,000	31.	30	42.	40
10.	10	21.	6,000	32.	300	43.	12.1
11.	100	22.	2,000	33.	320	44.	321

Side B

1.	10	12.	1,000	23.	40	34.	236
2.	10	13.	2,000	24.	4	35.	3
3.	20	14.	9,000	25.	0.4	36.	3
4.	80	15.	10	26.	0.7	37.	30
5.	10	16.	100	27.	500	38.	80
6.	100	17.	200	28.	5,000	39.	400
7.	200	18.	700	29.	5,300	40.	70
8.	700	19.	400	30.	6,800	41.	80
9.	1	20.	4,000	31.	20	42.	30
10.	10	21.	5,000	32.	200	43.	12.1
11.	100	22.	8,000	33.	230	44.	211

Problem Set

1. a. $\frac{1}{12}$ L
   b. $1\frac{1}{2}$ L
2. a. 7
   b. $\frac{1}{4}$ hr or 15 min
   c. 14
3. a. 18
   b. 6
4. a. 90
   b. 360
5. Answers will vary.
6. Answers will vary.

Exit Ticket

a. 6

b. 12

Homework

1. a. $\frac{1}{15}$ kg
   b. $1\frac{1}{3}$ kg
2. a. 19
   b. 38
3. a. 13
   b. 6
4. a. Answers will vary.
   b. Answers will vary.
5. Answers will vary.