Answer Key

GRADE 5 • MODULE 5

Addition and Multiplication with Volume and Area

Lesson 1

Problem Set

1. Explanations will vary.
   a. 1 cm^3
   b. 5 cm^3
   c. 9 cm^3
   d. 9 cm^3
   e. 12 cm^3
   f. 20 cm^3
2. Answers will vary.
3. a. Explanations will vary.
   b. 10 cm^3; explanations will vary.

Exit Ticket

1. a. 5 cm^3
   b. 12 cm^3
2. Answers will vary.

Homework

1. Explanations will vary
   a. 2 cm^3
   b. 4 cm^3
   c. 6 cm^3
   d. 6 cm^3
   e. 12 cm^3
   f. 16 cm^3
2. Answers will vary.
3. A cube is hidden under the second layer, explanations will vary.
4. Answers will vary.

Lesson 2

Problem Set

1. a. 8
   b. 16
   c. 48
2. a. Predictions will vary; 8 cm^3
   b. Predictions will vary; 16 cm^3
   c. Predictions will vary; 40 cm^3
3. Answers will vary.

Exit Ticket

1. 8
2. Predictions will vary; 12 cm^3

Homework

1. Explanations will vary.
   a. 4
   b. 12
   c. 24
2. a. 6
   b. 12
   c. 32
3. Answers will vary.

Lesson 3

Sprint

Side A

1. 2 fifths
2. 3 fifths
3. 4 fifths
4. 4 fifths
5. 3 eighths
6. 5 eighths
7. 7 eighths
8. 7 eighths
9. 3 tenths
10. 7 tenths
11. 7 tenths
12. 2
13. 4 halves or 2
14. 2
15. 6 thirds or 2
16. 2
17. 10 fifths or 2
18. 9 thirds or 3
19. 18 thirds or 6
20. 8 fourths or 2
21. 24 fourths or 6
22. 12 sixths or 2
23. 60 sixths or 10
24. 15 thirds or 5
25. 30 thirds or 10
26. 30 thirds or 10
27. 15 fifths or 3
28. 30 fifths or 6
29. 60 fifths or 12
30. 45 fifths or 9
31. 45 fifths or 9
32. 18 sixths or 3
33. 90 sixths or 15
34. 90 sixths or 15
35. 24 fourths or 6
36. 72 fourths or 18
37. 32 eighths or 4
38. 96 eighths or 12
39. 160 eighths or 20
40. 224 eighths or 28
41. 270 ninths or 30
42. 441 ninths or 49
43. 168 sevenths or 24
44. 294 sevenths or 42

Side B

1. 2 sevenths
2. 3 sevenths
3. 4 sevenths
4. 4 sevenths
5. 3 tenths
6. 7 tenths
7. 9 tenths
8. 9 tenths
9. 3 eighths
10. 5 eighths
11. 5 eighths
12. 2
13. 10 fifths or 2
14. 3
15. 9 thirds or 3
16. 5
17. 10 halves or 5
18. 6 thirds or 2
19. 12 thirds or 4
20. 12 sixths or 2
21. 60 sixths or 10
22. 8 fourths or 2
23. 24 fourths or 6
24. 15 fifths or 3
25. 30 fifths or 6
26. 60 fifths or 12
27. 45 fifths or 9
28. 45 fifths or 9
29. 15 thirds or 5
30. 30 thirds or 10
31. 30 thirds or 10
32. 24 sixths or 4
33. 120 sixths or 20
34. 120 sixths or 20
35. 20 fourths or 5
36. 60 fourths or 15
37. 24 eighths or 3
38. 72 eighths or 9
39. 120 eighths or 15
40. 168 eighths or 21
41. 315 ninths or 35
42. 378 ninths or 42
43. 147 sevenths or 21
44. 336 sevenths or 48

Problem Set

1. Answers will vary.
2. Jonah is correct; explanations will vary.
3. 50 in^3; 100 in^3; 175 in^3; explanations will vary.
4. 4; 12; 48 m^3

Exit Ticket

1. 2; 6; 12
2. 24

Homework

1. Answers will vary.
2. Explanations will vary.
3. 48 in^3; 80 in^3; 112 in^3; explanations will vary.
4. 4; 6; 24 m^3

Lesson 4

Problem Set

1. a. 5; 2; 2; 20
   b. 3; 2; 4; 24
   c. 4; 2; 4; 32
   d. 4; 3; 3; 36
2. a. 5 cm × 2 cm × 2 cm = 20 cm^3 (or variant)
   b. 3 cm × 2 cm × 4 cm = 24 cm^3 (or variant)
   c. 4 cm × 2 cm × 4 cm = 32 cm^3 (or variant)
   d. 4 cm × 3 cm × 3 cm = 36 cm^3 (or variant)
3. a. 48 in^3
   b. 36 m^3
4. 560 cm^3
5. Explanations will vary.
   a. 300 cm^3
   b. 240 in^3

Exit Ticket

a. 2; 2; 4; 16; 2 mm × 2 mm × 4 mm = 16 mm^3 (or variant)

b. 100 ft^3

Homework

1. a. 5; 2; 4; 40
   b. 3; 2; 5; 30
   c. 4; 2; 4; 32
   d. 8; 3; 3; 72
6. a. 5 cm × 2 cm × 4 cm = 40 cm^3 (or variant)
   b. 3 cm × 2 cm × 5 cm = 30 cm^3 (or variant)
   c. 4 cm × 2 cm × 4 cm = 32 cm^3 (or variant)
   d. 8 cm × 3 cm × 3 cm = 72 cm^3 (or variant)
3. a. 256 in^3
   b. 210 m^3
4. 20,160 in^3
5. a. 224 m^3
   b. 2,366 in^3

Lesson 5

Problem Set

1. 1, 32, 4 cm, 4 cm, 2 cm, 32 cm^3;
   2, 20, 2 cm, 5 cm, 2 cm, 20 cm^3
2. 1, 32; 2, 20
3. 4; 5; 6
4. 1 cm^3 = 1 mL, explanations will vary.
5. No, the beaker holds 40 mL less than the cube.
6. a. 7,800 mL
   b. 7.8 L
   c. 1,560 mL; explanations will vary.
7. 2 cm

Exit Ticket

a. 225 cm^3

b. Beaker shaded to line between 200 mL and 250 mL

Homework

1. Beaker shaded to line between 20 mL and 40 mL; explanations will vary.
2. A; C; explanations will vary.
3. Answers will vary.

Lesson 6

Problem Set

1. a. 420 cm^3; strategies will vary.
   b. 444 in^3; strategies will vary.
   c. 108 cm^3; strategies will vary.
   d. 324 m^3; strategies will vary.
2. 3, 840 in^3
3. 4 cm
4. 120 cm^3 or 120 mL
5. a. A: 144 ft^3; B: 288 ft^3
   b. 6 ft
   c. 18 ft

Exit Ticket

303 in^3

Homework

1. a. 72 in^3; strategies will vary.
   b. 1,431 cm^3; strategies will vary.
   c. 369 mm^3; strategies will vary.
   d. 472 m^3
2. 2,124 in^3
3. 5 cm
4. 585 cm^3 or 585 mL
5. A: 74 ft^3; B and C: 222 ft^3

Lesson 7

Sprint

Side A

1.	$\frac{1}{4}$	12.	$\frac{4}{15}$	23.	$\frac{10}{15}$	34.	$\frac{15}{20}$
2.	$\frac{1}{6}$	13.	$\frac{1}{12}$	24.	$\frac{15}{10}$	35.	$\frac{18}{20}$
3.	$\frac{1}{8}$	14.	$\frac{2}{12}$	25.	$\frac{1}{9}$	36.	$\frac{6}{20}$
4.	$\frac{1}{14}$	15.	$\frac{6}{12}$	26.	$\frac{2}{9}$	37.	$\frac{1}{49}$
5.	$\frac{1}{14}$	16.	$\frac{1}{18}$	27.	$\frac{4}{9}$	38.	$\frac{3}{40}$
6.	$\frac{1}{6}$	17.	$\frac{5}{18}$	28.	$\frac{6}{6}$	39.	$\frac{5}{24}$
7.	$\frac{1}{9}$	18.	$\frac{10}{18}$	29.	$\frac{8}{9}$	40.	$\frac{9}{16}$
8.	$\frac{1}{18}$	19.	$\frac{10}{12}$	30.	$\frac{10}{9}$	41.	$\frac{12}{18}$
9.	$\frac{1}{15}$	20.	$\frac{1}{25}$	31.	$\frac{9}{10}$	42.	$\frac{18}{8}$
10.	$\frac{1}{15}$	21.	$\frac{4}{25}$	32.	$\frac{3}{20}$	43.	$\frac{49}{72}$
11.	$\frac{2}{15}$	22.	$\frac{6}{25}$	33.	$\frac{12}{20}$	44.	$\frac{63}{96}$

Side B

1.	$\frac{1}{6}$	12.	$\frac{4}{15}$	23.	$\frac{15}{20}$	34.	$\frac{10}{15}$
2.	$\frac{1}{8}$	13.	$\frac{1}{12}$	24.	$\frac{20}{15}$	35.	$\frac{12}{15}$
3.	$\frac{1}{10}$	14.	$\frac{3}{12}$	25.	$\frac{1}{16}$	36.	$\frac{6}{15}$
4.	$\frac{1}{18}$	15.	$\frac{6}{12}$	26.	$\frac{3}{16}$	37.	$\frac{1}{81}$
5.	$\frac{1}{18}$	16.	$\frac{1}{18}$	27.	$\frac{9}{16}$	38.	$\frac{3}{40}$
6.	$\frac{1}{10}$	17.	$\frac{2}{18}$	28.	$\frac{12}{12}$	39.	$\frac{3}{24}$
7.	$\frac{1}{15}$	18.	$\frac{10}{18}$	29.	$\frac{15}{16}$	40.	$\frac{4}{9}$
8.	$\frac{1}{35}$	19.	$\frac{9}{8}$	30.	$\frac{18}{16}$	41.	$\frac{24}{32}$
9.	$\frac{1}{15}$	20.	$\frac{1}{25}$	31.	$\frac{16}{18}$	42.	$\frac{12}{9}$
10.	$\frac{1}{15}$	21.	$\frac{9}{25}$	32.	$\frac{2}{15}$	43.	$\frac{48}{63}$
11.	$\frac{2}{15}$	22.	$\frac{12}{25}$	33.	$\frac{8}{15}$	44.	$\frac{56}{84}$

Problem Set

1. 48 ft^3; diagrams will vary.
2. Four different diagrams drawn
3. Answers and explanations will vary.
4. a. No, explanations will vary.
   b. Explanations will vary.
   c. 60 ft^2

Exit Ticket

No; explanations and drawings will vary.

Homework

1. 216 in^3; diagrams will vary.
2. Three different diagrams drawn
3. Answers will vary.
4. a. No; explanations will vary.
   b. Answers will vary.
   c. Answers will vary.
   d. Answers and explanations will vary.

Lesson 8

Problem Set

Parameters will vary.

Exit Ticket

Prism sketches and dimensions will vary.

Homework

1. 1,080 cm^3; answers will vary.
2. Answers will vary.

Lesson 9

Problem Set

Measurements and calculations will vary.

Exit Ticket

a. 12; 6; 4; 288

b. 10; 10; 18; 1,800

c. 2,088

Homework

Answers will vary.

Lesson 10

Problem Set

1. Rectangle 3 units by 2 units drawn with tiles; 3; 2; 6
2. Rectangle 3 units by $2\frac{1}{2}$ units drawn with tiles; 3; $2\frac{1}{2}$; $7\frac{1}{2}$
3. Rectangle $1\frac{1}{2}$ units by 5 units drawn with tiles; 5; $1\frac{1}{2}$; $7\frac{1}{2}$
4. Rectangle 2 units by $1\frac{3}{4}$ units drawn with tiles; 2; $1\frac{3}{4}$; $3\frac{1}{2}$
5. Rectangles $\frac{3}{4}$ unit by 5 units drawn with tiles; 5; $\frac{3}{4}$; $3\frac{3}{4}$
6. $60\frac{3}{4}$ in^2; explanations will vary.
7. 69 ft^2

Exit Ticket

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

Homework

1. a. $7\frac{1}{2}$
   b. 4; $2\frac{1}{4}$; 9
   c. Rectangle $\frac{3}{4}$ units by 4 units is drawn and tiled; 3
      Rectangle 2 units by $1\frac{3}{4}$ units is drawn and tiled; $3\frac{1}{2}$
2. $109\frac{1}{2}$ in^2
3. $42\frac{3}{4}$ ft^2

Lesson 11

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. $4\frac{1}{2}$; $2\frac{1}{2}$; $11\frac{1}{4}$
2. $3\frac{3}{4}$; $1\frac{3}{4}$; $6\frac{9}{16}$
3. $1\frac{1}{2}$; $\frac{3}{4}$; $1\frac{1}{8}$
4. $\frac{3}{4}$; $\frac{1}{2}$; $\frac{3}{8}$
5. a. Rectangles drawn
   b. Colleen's: $41\frac{2}{3}$ cm^2; Caroline's: $166\frac{2}{3}$ cm^2
   c. Answers will vary.
6. $162\frac{9}{16}$ in^2

Exit Ticket

Rectangle $2\frac{1}{2}$ square units sketched; $6\frac{1}{4}$ square units

Homework

1. a. $2\frac{3}{4}$; $1\frac{1}{2}$; $4\frac{1}{8}$
   b. Rectangle $2\frac{1}{2}$ by $\frac{3}{4}$ units drawn and tiled; $1\frac{7}{8}$
   c. Rectangle $3\frac{1}{3}$ by $2\frac{1}{2}$ units drawn and tiled; $8\frac{1}{3}$
   d. Rectangle $3\frac{1}{2}$ by $2\frac{1}{4}$ units drawn and tiled; $7\frac{7}{8}$
2. $39\frac{1}{16}$ in^2

Lesson 12

Problem Set

1. a. Rectangle labeled; 5 in^2
   b. Rectangle labeled; $3\frac{1}{16}$ in^2
   c. Rectangle labeled; $5\frac{1}{2}$ in^2
   d. Rectangle labeled; $7\frac{5}{16}$ in^2
   e. Rectangle labeled; $1\frac{7}{8}$ in^2
   f. Rectangle labeled; $1\frac{7}{8}$ in^2

2. a. $1\frac{1}{2}$ ft^2, explanations will vary.
   b. $2\frac{1}{4}$ yd^2, explanations will vary.
   c. $2\frac{31}{32}$ yd^2, explanations will vary.

3. $290\frac{11}{12}$ ft^2

4. a. $10\frac{9}{16}$ in^2
   b. $84\frac{1}{2}$ in^2

Exit Ticket

$2\frac{1}{4}$ in, $1\frac{1}{2}$ in; area = $3\frac{3}{8}$ in^2

Homework

1. a. Rectangle labeled; $3\frac{3}{8}$ in^2
   b. Rectangle labeled; $1\frac{11}{16}$ in^2
   c. Rectangle labeled; $5\frac{1}{16}$ in^2
   d. Rectangle labeled; $4\frac{1}{8}$ in^2
   e. Rectangle labeled; $\frac{7}{8}$ in^2

2. a. $\frac{9}{16}$ yd^2
   b. $3\frac{1}{8}$ ft^2

3. No; answers will vary.

4. a. $6\frac{1}{4}$ ft^2
   b. 266 ft^2

Lesson 13

Problem Set

1. a. $3\ \text{km}^2$
   b. $69\frac{3}{10}\ \text{m}^2$
   c. $24\frac{5}{9}\ \text{yd}^2$
   d. $3\frac{19}{24}\ \text{mi}^2$
2. $38\frac{2}{15}\ \text{in}^2$
3. $562\frac{1}{2}\ \text{yd}^2$

Exit Ticket

1. $9\frac{4}{5}\ \text{mm}^2$
2. $26\frac{7}{16}\ \text{km}^2$

Homework

1. a. $16\ \text{cm}^2$
   b. $21\frac{3}{5}\ \text{ft}^2$
   c. $26\frac{1}{15}\ \text{in}^2$
   d. $4\frac{5}{7}\ \text{m}^2$
2. $77\frac{11}{32}\ \text{in}^2$
3. $374\frac{21}{80}\ \text{ft}^2$

Lesson 14

Problem Set

1. $71\frac{1}{2}$ ft^2
2. $81\frac{1}{4}$ in^2
3. $1{,}094\frac{5}{8}$ ft^2
4. a. $1{,}656\frac{1}{9}$ ft^2
   b. \$409.83
5. a. Answers will vary.
   b. Answers will vary.

Exit Ticket

$56\frac{7}{20}$ ft^2.

Homework

1. 180 ft^2

   $161\frac{2}{3}$ ft^2
2. $307\frac{1}{16}$ in^2
3. $383\frac{9}{10}$ ft^2
4. $2{,}075\frac{7}{10}$ ft^2

   5 bags for the highest setting;

   7 bags for the lowest

Lesson 15

Problem Set

1. $\frac{9}{16}$ m^2
2. a. $\frac{25}{64}$ yd^2
   b. $23\frac{1}{2}$ ft
   c. $34\frac{33}{64}$ ft^2
3. a. $11\frac{1}{4}$ ft^2
   b. $5\frac{5}{8}$ ft^2
4. a. $30\frac{9}{25}$ cm^2
   b. $1\frac{3}{5}$ cm

Exit Ticket

$220\frac{1}{2}$ in^2

Homework

1. $18\frac{3}{4}$ ft^2
2. $1{,}642\frac{9}{16}$ ft^2
3. $375\frac{3}{4}$ in^2

Lesson 16

Problem Set

1. Drawings will vary.
2. Answers will vary.
3. Answers will vary but should include that they all have at least one pair of parallel lines.
4. When it has at least one pair of parallel lines
5. Drawings will vary.

Exit Ticket

1. a. Trapezoids will vary.
   b. Answers will vary.

Homework

1. a. Drawings will vary.
   b. Drawings will vary.
2. a. Shapes in the wrong groups circled; explanations will vary.
   b. Explanations will vary.
3. Trapezoid will vary.
   a. Answers will vary.

Lesson 17

Problem Set

1. Parallelograms will vary.
2. Answers will vary.
   a. Answers will vary.
   b. Answers will vary.
3. Parallelograms will vary.
   a. Answers will vary.
   b. Answers will vary.
4. Answers will vary.
   a. Answers will vary.
   b. Answers will vary.

Exit Ticket

1. Parallelograms will vary.
2. When it has two pairs of parallel lines

Homework

1. a. Parallelograms will vary.
   b. 120°; 60°; 120°
2. a. 6 cm; 3 cm
   b. 67°; 113°; 67°
3. 4; 4; 3; 6
4. Answers will vary.
5. Answers will vary.

Lesson 18

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. Drawings will vary.
2. Answers will vary.
3. Rhombus and rectangle will vary.
   a. Measurements will vary.
   b. Drawings will vary.
4. a. Answers will vary.
   b. Answers will vary.
   c. When all four sides are equal
   d. When all the angles are 90°
   e. When all sides are equal and pairs of sides are parallel to each other

Exit Ticket

1. Rhombuses will vary.
2. Rectangles will vary.

Homework

1. a. Rhombuses will vary.
   b. Rectangles will vary.
   c. Rectangles will vary.
   d. Rectangles will vary.
2. 54.25 cm or $54\frac{1}{4}$ cm
3. Answers will vary.
4. Answers will vary.

Lesson 19

Sprint

Side A

1.	20	12.	60	23.	660	34.	42
2.	120	13.	130	24.	6,600	35.	420
3.	1200	14.	26	25.	240	36.	4,200
4.	40	15.	260	26.	480	37.	1,640
5.	340	16.	1,300	27.	2,400	38.	4,500
6.	3400	17.	2,600	28.	4,800	39.	42,600
7.	70	18.	8	29.	690	40.	720
8.	270	19.	88	30.	6,900	41.	2,250
9.	2700	20.	880	31.	142	42.	25,200
10.	30	21.	8,800	32.	1,420	43.	5,220
11.	6	22.	66	33.	28	44.	63,200

Side B

1.	30	12.	80	23.	880	34.	52
2.	130	13.	140	24.	8,800	35.	520
3.	1,300	14.	28	25.	420	36.	5,200
4.	50	15.	280	26.	840	37.	2,160
5.	350	16.	1,400	27.	4,200	38.	4,500
6.	3,500	17.	2,800	28.	8,400	39.	48,600
7.	80	18.	6	29.	960	40.	640
8.	280	19.	66	30.	9,600	41.	1,950
9.	2,800	20.	660	31.	162	42.	14,400
10.	40	21.	6,600	32.	1,620	43.	5,340
11.	8	22.	88	33.	39	44.	60,800

Problem Set

1. Figures drawn.
2. a. Answers will vary.
   b. Answers will vary.
3. a. Answers will vary.
   b. Answers will vary.
   c. When all four angles are 90°
   d. When both pairs of adjacent sides are equal, and when all four angles are 90°
   e. When all four sides and/or all four angles are equal.

Exit Ticket

1. All four sides are equal.
2. Kites have equal adjacent sides, but parallelograms have equal opposite sides.

Homework

1. a. Kites will vary.
   b. Quadrilateral that has two pairs of equal adjacent sides
   c. Both pairs of sides are equal, or when it is a rhombus
2. It has right angles.
3. Squares will vary.
4. Explanations will vary.

Lesson 20

Problem Set

1. a. T
   b. F; answers will vary.
   c. T
   d. F; answers will vary.
   e. T
   f. T
   g. F; answers will vary.
   h. F; answers will vary.
   i. T
   j. F; answers will vary.
   k. F; answers will vary.

2. a. 140; 90; quadrilateral
   b. 26; 26; 11; 55; 90; trapezoid, parallelogram, quadrilateral
   c. 16; 18; 75; 105; 105; quadrilateral, trapezoid

Exit Ticket

Squares will vary.

a. Equal adjacent sides
b. All four sides equal
c. All four right angles
d. Both pairs of opposite sides equal and parallel
e. At least one set of opposite parallel sides
f. Four sides

Homework

1. Square; rectangle; rhombus; parallelogram; kite; trapezoid
2. 9.9; 9.9; 28; 90; 90

Lesson 21

Sprint

Side A

1.	3	12.	20	23.	120	34.	30
2.	43	13.	20	24.	12	35.	40
3.	430	14.	40	25.	2,100	36.	43
4.	43	15.	20	26.	210	37.	6
5.	430	16.	20	27.	21	38.	40
6.	5	17.	24	28.	4,200	39.	60
7.	85	18.	12	29.	240	40.	64
8.	850	19.	12	30.	42	41.	32
9.	85	20.	36	31.	32,000	42.	23
10.	850	21.	12	32.	320	43.	240
11.	60	22.	12	33.	3,200	44.	42

Side B

1.	2	12.	30	23.	210	34.	20
2.	42	13.	30	24.	21	35.	30
3.	420	14.	60	25.	1,200	36.	32
4.	42	15.	30	26.	120	37.	4
5.	420	16.	30	27.	12	38.	40
6.	4	17.	24	28.	2,400	39.	70
7.	84	18.	12	29.	240	40.	73
8.	840	19.	12	30.	24	41.	32
9.	84	20.	63	31.	23,000	42.	23
10.	840	21.	21	32.	230	43.	240
11.	90	22.	21	33.	2,300	44.	42

Problem Set

1. Answers will vary.
2. Answers will vary.
3. Answers will vary.

Exit Ticket

1. Parallelograms; trapezoids; trapezoids; parallelograms
2. Rhombuses; kites; kites; rhombuses

Homework

1. a. Always
   b. Sometimes
   c. Always
   d. Always
   e. Always
   f. Sometimes
   g. Sometimes
   h. Drawings will vary.

2. a. Explanations will vary.
   b. Explanations will vary.