



## Answer Key

## GRADE 3 • MODULE 7

## Geometry and Measurement Word Problems

## Lesson 1

### Pattern Sheet

3	6	9	12
15	3	6	3
9	3	12	3
15	3	6	9
6	12	6	15
6	3	6	9
3	9	6	9
12	9	15	9
12	3	12	6
12	9	12	15
12	15	3	15
6	15	9	15
12	6	12	9
15	9	6	12
9	15	6	12

### Problem Set

- |              |        |
|--------------|--------|
| 1. a. \$22   | 2. 4   |
| b. 5         | 3. \$4 |
| c. 7 minutes | 4. 24  |

### Exit Ticket

289

### Homework

- |              |        |
|--------------|--------|
| 1. a. \$34   | 2. 9   |
| b. 4         | 3. \$2 |
| c. 7 minutes | 4. 32  |

## Lesson 2

### Pattern Sheet

3	6	9	12
15	18	21	24
27	30	15	18
15	21	15	24
15	27	15	30
18	15	18	21
18	24	18	27
18	21	18	21
24	21	27	21
24	18	24	21
24	27	27	18
27	21	27	24
27	24	18	27
21	27	18	24
27	21	18	24

### Problem Set

- |                      |                   |
|----------------------|-------------------|
| 1. 8                 | 4. 3              |
| 2. 375 milliliters   | 5. 311 grams      |
| 3. 240 square inches | 6. 88 centimeters |

### Exit Ticket

40 milliliters

### Homework

- |                      |                   |
|----------------------|-------------------|
| 1. 50 grams          | 4. 4              |
| 2. 7                 | 5. 307 grams      |
| 3. 360 square inches | 6. 11 centimeters |

## Lesson 3

### Pattern Sheet

4	8	12	16
20	4	8	4
12	4	16	4
20	4	8	12
8	16	8	20
8	4	8	12
4	12	8	12
16	12	20	12
16	4	16	8
16	12	16	20
16	20	4	20
8	20	12	20
16	8	16	12
20	12	8	16
12	20	8	16

### Problem Set

- |                  |                  |
|------------------|------------------|
| 1. 9 milliliters | 4. 19 minutes    |
| 2. 102 feet      | 5. 7             |
| 3. 49 grams      | 6. 7 centimeters |

### Exit Ticket

72 ounces

### Homework

- |                   |             |
|-------------------|-------------|
| 1. 10 milliliters | 4. a. \$65  |
| 2. 21 minutes     | b. \$194    |
| 3. 120            | 5. 6 inches |

## Lesson 4

### Pattern Sheet

4	8	12	16
20	24	28	32
36	40	20	24
20	28	20	32
20	36	20	40
24	20	24	28
24	32	24	36
24	28	24	28
32	28	36	28
32	24	32	28
32	36	36	24
36	28	36	32
36	32	24	36
28	36	24	32
36	28	24	32

### Problem Set

1. Answer provided  
A–L; one polygon sketched  
B, C, E, F, G, H, I, J, L; one polygon sketched  
B, C, F, G, H, I, L; one polygon sketched  
B, C, F, H; one polygon sketched  
C, F; one polygon sketched
2. A–L; explanations will vary.
3. Polygon sketched and traced; explanations will vary.
4. Diagonal line drawn in chart polygons; answers will vary.

**Exit Ticket**

1. Rhombus, 4 equal sides, 2 sets of parallel sides
2. Trapezoid, 4 sides, 1 set of parallel sides

**Homework**

1. Answer provided  
True  
True  
False  
True
2. a. Parallel sides traced with a colored pencil  
b. A shape with at least 1 set of parallel sides drawn

## Lesson 5

### Pattern Sheet

5	10	15	20
25	5	10	5
15	5	20	5
25	5	10	15
10	20	10	25
10	5	10	15
5	15	10	15
20	15	25	15
20	5	20	10
20	15	20	25
20	25	5	25
10	25	15	25
20	10	20	15
25	15	10	20
15	25	10	20

### Problem Set

1. Answer provided

M, P, S, U, W; one polygon sketched

N, O, R, T, Q, V, X; one polygon sketched

N, Q, T, S; one polygon sketched

M, N, R, P, S, U, T; one polygon sketched

2. Answers will vary.

3. No; answers will vary.

4. a. U; hexagon

- b. Drawings will vary.

**Exit Ticket**

1. No; explanations will vary.
2. 2; right angles circled
3. 1
4. Pentagon

**Homework**

1. Hexagon matches *At least 1 right angle* and *All sides are not equal*  
Rectangle matches *At least 1 right angle*, *All sides are not equal*, and *At least 1 set of parallel sides*  
Regular octagon matches *All sides are equal* and *At least 1 set of parallel sides*  
Decagon matches *All sides are not equal*  
Pentagon matches *All sides are not equal*  
Square matches *All sides are equal*, *At least 1 right angle*, and *At least 1 set of parallel sides*
2. Answers will vary.
3. Yes; explanations will vary.

## Lesson 6

### Problem Set

1. Right triangle drawn
2. Square with side lengths of 2 inches drawn
3. Quadrilateral drawn; parallel sides traced in green
4. Pentagon with at least 2 equal sides drawn; equal side lengths labeled
5. Hexagon with at least 2 equal sides drawn; equal side lengths labeled
6. No; explanations and drawings will vary.

### Exit Ticket

Rectangle drawn

### Homework

1. Triangle with no right angles drawn
2. Square or a rectangle drawn
3. Quadrilateral with 2 equal sides drawn; equal side lengths labeled
4. Hexagon with at least 2 equal sides drawn; equal side lengths labeled
5. Pentagon with at least 2 equal sides drawn; equal side lengths labeled
6. Regular triangle with side lengths of 4 cm drawn

## Lesson 7

### Pattern Sheet

5	10	15	20
25	30	35	40
45	50	25	30
25	35	25	40
25	45	25	50
30	25	30	35
30	40	30	45
30	35	30	35
40	35	45	35
40	30	40	35
40	45	45	30
45	35	45	40
45	40	30	45
35	45	30	40
45	35	30	40

### Problem Set

1. Grid colored
2. Grid colored
  - a. Number sentence will vary.
  - b. Number sentence will vary.
3. a. Grid colored
  - b. Explanations will vary.
4. Answers will vary.

### Exit Ticket

Grid colored

**Homework**

1. 3 rectangles colored
2. a. Square with 16 units colored  
b. 2 rectangles with 24 units colored
3. Explanations will vary.

## Lesson 8

### Pattern Sheet

6	12	18	24
30	6	12	6
18	6	24	6
30	6	12	18
12	24	12	30
12	6	12	18
6	18	12	18
24	18	30	18
24	6	24	12
24	18	24	30
24	30	6	30
12	30	18	30
24	12	24	18
30	18	12	24
18	30	12	24

### Problem Set

1. 2 right triangles drawn and labeled
2. 2 smaller triangles drawn and labeled
3. Trapezoid and triangle drawn and labeled
4. 2 smaller trapezoids drawn and labeled
5. Square and triangle drawn and labeled
6. Parallelogram and triangle drawn and labeled
7. a. Lines drawn correctly inside the square  
b. Descriptions and explanations will vary.

### Exit Ticket

3 shapes traced and labeled; one common attribute described

## Homework

1. Line drawn to divide square
2. Line drawn to divide triangle
3. Line drawn to divide trapezoid
4. Line drawn to divide quadrilateral
5. 4 lines drawn to divide square into 8 equal triangles
6. Descriptions will vary.

## Lesson 9

### Pattern Sheet

6	12	18	24
30	36	42	48
54	60	30	36
30	42	30	48
30	54	30	60
36	30	36	42
36	48	36	54
36	42	36	42
48	42	54	42
48	36	48	42
48	54	54	36
54	42	54	48
54	48	36	54
42	54	36	48
54	42	36	48

### Problem Set

1. a. Drawings will vary.  
b. Drawings will vary.  
c. Drawings will vary.  
d. Drawings will vary.
2. Drawings will vary.
3. Drawings will vary.
4. Outlines and descriptions will vary.

### Exit Ticket

Sketches will vary.

**Homework**

1. a. Drawings will vary.  
b. Drawings will vary.  
c. Drawings will vary.  
d. Drawings will vary.
2. Lines are drawn correctly on the cat.
3. Drawings will vary.

## Lesson 10

### Pattern Sheet

7	14	21	28
35	7	14	7
21	7	28	7
35	7	14	21
14	28	14	35
14	7	14	21
7	21	14	21
28	21	35	21
28	7	28	14
28	21	28	35
28	35	7	35
14	35	21	35
28	14	28	21
35	21	14	28
21	35	14	28

### Problem Set

1. a. 2-inch square traced with red crayon  
 b. New shape traced with red crayon  
 c. Answers will vary.  
 d. Shapes colored with blue crayon  
 e. Red; explanations will vary.  
 f. Area; explanations will vary.  
 g. Neither; explanations will vary.
2. a. Perimeters of shapes outlined with red crayon  
 b. Explanations will vary.
3. Paper outlined with highlighter

**Exit Ticket**

1. Outside edges colored purple; inside colored yellow
2. Purple; explanations will vary.

**Homework**

1. Perimeter of each shape traced
  - a. Explanations will vary.
  - b. Explanations will vary.
2. Rectangle drawn on grid
  - a. Perimeter traced
  - b. Area shaded
  - c. Explanations will vary.
3. Maya; explanations will vary.

## Lesson 11

### Problem Set

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

### Exit Ticket

Drawings will vary.

### Homework

1. a. Shape outlined with highlighter  
b. Explanations will vary.  
c. 18  
d. Shape shaded in with colored pencil
2. Drawings will vary.
3. Frank; explanations will vary.
4. a. Triangle drawn correctly  
b. Yes, explanations will vary.

## Lesson 12

### Pattern Sheet

7	14	21	28
35	42	49	56
63	70	35	42
35	49	35	56
35	63	35	70
42	35	42	49
42	56	42	63
42	49	42	49
56	49	63	49
56	42	56	49
56	63	63	42
63	49	63	56
63	56	42	63
49	63	42	56
63	49	42	56

### Problem Set

- a. Labeled each side 3 cm;  $3 \text{ cm} + 3 \text{ cm} + 3 \text{ cm} + 3 \text{ cm} = 12 \text{ cm}$   
 b. Labeled each side 3 cm;  $3 \text{ cm} + 3 \text{ cm} + 3 \text{ cm} + 3 \text{ cm} + 3 \text{ cm} = 18 \text{ cm}$   
 c. Labeled each side 4 cm;  $4 \text{ cm} + 4 \text{ cm} + 4 \text{ cm} + 4 \text{ cm} = 16 \text{ cm}$   
 d. Labeled 6 cm, 6 cm, 5 cm;  $6 \text{ cm} + 6 \text{ cm} + 5 \text{ cm} = 17 \text{ cm}$   
 e. Labeled 3 cm, 3 cm, 2 cm, 3 cm, 1 cm, 6 cm;  $3 \text{ cm} + 3 \text{ cm} + 2 \text{ cm} + 3 \text{ cm} + 1 \text{ cm} + 6 \text{ cm} = 18 \text{ cm}$
- Labeled each side 3 cm; Perimeter =  $3 \text{ cm} + 3 \text{ cm} + 3 \text{ cm} + 3 \text{ cm} = 12 \text{ cm}$
- Shapes labeled; Daisy; explanations will vary.
- Explanations will vary; 16 cm

**Exit Ticket**

4 cm, 2 cm, 2 cm, 4 cm, 2 cm, 2 cm, 4 cm, 2 cm, 2 cm, 4 cm, 2 cm, 2 cm;

$$4 \text{ cm} + 2 \text{ cm} + 2 \text{ cm} + 4 \text{ cm} + 2 \text{ cm} + 2 \text{ cm} + 4 \text{ cm} + 2 \text{ cm} + 2 \text{ cm} + 4 \text{ cm} + 2 \text{ cm} + 2 \text{ cm} = 32 \text{ cm}$$

**Homework**

1. a. Labeled 3 cm, 4 cm, 5 cm;  $3 \text{ cm} + 4 \text{ cm} + 5 \text{ cm} = 12 \text{ cm}$   
b. Labeled 6 cm, 4 cm, 6 cm, 4 cm;  $6 \text{ cm} + 4 \text{ cm} + 6 \text{ cm} + 4 \text{ cm} = 20 \text{ cm}$   
c. Labeled 3 cm, 4 cm, 5 cm, 4 cm;  $3 \text{ cm} + 4 \text{ cm} + 5 \text{ cm} + 4 \text{ cm} = 16 \text{ cm}$   
d. Labeled each side 5 cm;  $5 \text{ cm} + 5 \text{ cm} + 5 \text{ cm} + 5 \text{ cm} = 20 \text{ cm}$   
e. Labeled 4 cm, 2 cm, 3 cm, 8 cm, 3 cm, 2 cm, 4 cm, 12 cm;  
 $4 \text{ cm} + 2 \text{ cm} + 3 \text{ cm} + 8 \text{ cm} + 3 \text{ cm} + 2 \text{ cm} + 4 \text{ cm} + 12 \text{ cm} = 38 \text{ cm}$
2. 3 cm each side;  $P = 3 \text{ cm} + 3 \text{ cm} = 18 \text{ cm}$
3. No; explanations will vary.
4. No; explanations will vary.

## Lesson 13

### Pattern Sheet

8	16	24	32
40	8	16	8
24	8	32	8
40	8	16	24
16	32	16	40
16	8	16	24
8	24	16	24
32	24	40	24
32	8	32	16
32	24	32	40
32	40	8	40
16	40	24	40
32	16	32	24
40	24	16	32
24	40	16	32

### Problem Set

1. a. 22  
b. 4, 4, 4, 4; 16  
c. 11, 9, 6; 26  
d. 15, 5, 9, 7; 36  
e. 9, 9, 2, 2, 3; 25
2. 52 m
3. a. 24 in  
b. Yes; 5 sides

### Exit Ticket

Shape B; explanations will vary.

**Homework**

1. Shape q: Answer provided

Shape r:  $P = 6 \text{ ft} + 9 \text{ ft} + 6 \text{ ft} + 6 \text{ ft} + 9 \text{ ft}$ ;  $P = 36 \text{ ft}$

Shape s:  $P = 7 \text{ cm} + 5 \text{ cm} + 7 \text{ cm} + 5 \text{ cm}$ ;  $P = 24 \text{ cm}$

Shape a:  $P = 9 \text{ yd} + 7 \text{ yd} + 5 \text{ yd} + 7 \text{ yd}$ ;  $P = 28 \text{ yd}$

Shape m:  $P = 4 \text{ in} + 4 \text{ in} + 4 \text{ in} + 4 \text{ in}$ ;  $P = 16 \text{ in}$

Shape e:  $P = 8 \text{ cm} + 5 \text{ cm} + 8 \text{ cm} + 5 \text{ cm}$ ;  $P = 26 \text{ cm}$

Shape u:  $P = 6 \text{ m} + 3 \text{ m} + 7 \text{ m} + 4 \text{ m}$ ;  $P = 20 \text{ m}$

Shape l:  $P = 4 \text{ m} + 3 \text{ m} + 4 \text{ m} + 2 \text{ m} + 2 \text{ m}$ ;  $P = 15 \text{ m}$

Square meals

2. 160 ft

3. a. 33 in

- b. Yes; 8 sides

## Lesson 14

### Pattern Sheet

8	16	24	32
40	48	56	64
72	80	40	48
40	56	40	64
40	72	40	80
48	40	48	56
48	64	48	72
48	56	48	56
64	56	72	56
64	48	64	56
64	72	72	48
72	56	72	64
72	64	48	72
56	72	48	64
72	56	48	64

### Problem Set

1. a. Labeled each side 8 in; 56  
b. Labeled each side 7 ft; 21  
c. Labeled each side 9 m; 36  
d. Labeled each side 6 in; 30
2. Labeled 7 cm and 2 cm; 18
3. 48 cm
4. 34 in
5. Both; explanations will vary.

**Exit Ticket**

Regular pentagon; work shown correctly

**Homework**

1. a. Labeled each side 4 in; 12  
b. Labeled each side 8 cm; 32  
c. Labeled each side 9 m; 72  
d. Labeled each side 6 in; 36
2. Labeled 4 cm and 9 cm; 26
3. 35 cm
4. 96 m
5. 38 in

## Lesson 15

### Pattern Sheet

9	18	27	36
45	9	18	9
27	9	36	9
45	9	18	27
18	36	18	45
18	9	18	27
9	27	18	27
36	27	45	27
36	9	36	18
36	27	36	45
36	45	9	45
18	45	27	45
36	18	36	27
45	27	18	36
27	45	18	36

### Problem Set

- |           |           |
|-----------|-----------|
| 1. 22 ft  | 4. 180 in |
| 2. 165 cm | 5. 640 yd |
| 3. 34 yd  | 6. 216 in |

### Exit Ticket

36 yd

### Homework

- |           |          |
|-----------|----------|
| 1. 26 in  | 4. 36 in |
| 2. 40 ft  | 5. 64 ft |
| 3. 160 yd | 6. 32 ft |

## Lesson 16

### Pattern Sheet

9	18	27	36
45	54	63	72
81	90	45	54
45	63	45	72
45	81	45	90
54	45	54	63
54	72	54	81
54	63	54	63
72	63	81	63
72	54	72	63
72	81	81	54
81	63	81	72
81	72	54	81
63	81	54	72
81	63	54	72

### Problem Set

1. Answers will vary.
  - a. Explanations will vary.
  - b. Yes, explanations will vary.
2. No; explanations will vary.
3. No; explanations will vary.
4. No; explanations will vary.

### Exit Ticket

Answers will vary.

## Homework

1. a. Answers will vary.  
b. Explanations will vary.
2. Shape A:  $7\frac{3}{4}$  in; Shape B:  $8\frac{3}{4}$  in  
a. Shape B  
b. About 1 in; answers may vary.
3. Answers will vary.

## Lesson 17

### Problem Set

1. a. Labeled 1 cm, 2 cm;  $P = (3 \times 2 \text{ cm}) + 1 \text{ cm} + 3 \text{ cm} + 4 \text{ cm} = 14 \text{ cm}$  (equations may vary)  
b. Labeled 1 ft, 1 ft, 2 ft;  $P = (4 \times 2 \text{ ft}) + (3 \times 1 \text{ ft}) + 5 \text{ ft} = 16 \text{ ft}$  (equations may vary)  
c. Labeled 2 m, 2 m, 4 m;  $P = (5 \times 2 \text{ m}) + (2 \times 4 \text{ m}) + 6 \text{ m} = 24 \text{ m}$  (equations may vary)  
d. Labeled 2 yd, 1 yd, 2 yd;  $P = (7 \times 2 \text{ yd}) + 7 \text{ yd} + 1 \text{ yd} + 4 \text{ yd} = 26 \text{ yd}$  (equations may vary)
2. 48 cm
3.  $a = 8 \text{ in}$ ,  $b = 5 \text{ in}$ ; 26 in

### Exit Ticket

$a = 7 \text{ m}$ ,  $b = 8 \text{ m}$ ; 30 m

### Homework

1. a. Labeled 3 m, 7 m;  $P = (2 \times 7 \text{ m}) + 3 \text{ m} + 2 \text{ m} + 9 \text{ m} + 4 \text{ m} = 32 \text{ m}$  (equations may vary)  
b. Labeled 4 cm;  $P = (2 \times 2 \text{ cm}) + (2 \times 4 \text{ cm}) + 3 \text{ cm} + 5 \text{ cm} + 6 \text{ cm} + 8 \text{ cm} = 34 \text{ cm}$  (equations may vary)  
c. Labeled 2 in, 6 in, 4 in;  $P = (2 \times 2 \text{ in}) + (3 \times 4 \text{ in}) + (2 \times 6 \text{ in}) + 12 \text{ in} = 40 \text{ in}$  (equations may vary)  
d. Labeled 3 ft, 3 ft;  $P = (4 \times 3 \text{ ft}) + 1 \text{ ft} + 2 \text{ ft} + 7 \text{ ft} + 8 \text{ ft} = 30 \text{ ft}$  (equations may vary)
2. 72 cm
3.  $a = 13 \text{ in}$ ,  $b = 6 \text{ in}$ ; 38 in

## Lesson 18

### Problem Set

1. a. 4 rectangles drawn and labeled correctly  
b. Answers will vary.
2. a. 3 rectangles drawn and labeled correctly  
b. 16 units, explanations will vary.
3. Yes; explanations will vary.

### Exit Ticket

1; 26 cm

4; 14 cm

2; 16 cm

### Homework

1. 3 rectangles shaded correctly on the grid
2. Answers will vary.
3. 3 rectangles drawn with side lengths labeled correctly
  - a. Answers will vary.
  - b. Answers and explanations will vary.

## Lesson 19

### Problem Set

1. 1, 1, 13; 2, 1, 14, 2, 7; 2, 1, 15, 3, 5; 3, 1, 16, 2, 8, 4, 4; 1, 1, 17; 3, 1, 18, 2, 9, 3, 6
2. Line plot created
3. 12, 16, and 18 unit squares
4. Answers will vary.

### Exit Ticket

3, 1, 20, 2, 10, 4, 5

### Homework

1. 2, 1, 2, 2, 3; 1, 1, 7; 2, 1, 8, 2, 4; 2, 1, 9, 3, 3; 2, 1, 10, 2, 5; 1, 1, 11
2. Line plot created
  - a. No; explanations will vary.
  - b. 2; explanations will vary.

## Lesson 20

### Sprint

#### Side A

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

#### Side B

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

**Problem Set**

1. a. 3 rectangles drawn and labeled  
b. Answers will vary.  
c. Answers will vary.  
d. Areas are different
2. a. 3 rectangles drawn and labeled  
b. Answers will vary.  
c. Answers will vary.

**Exit Ticket**

- a. 2 rectangles are drawn and labeled
- b. 3 square units, 4 square units

**Homework**

1. a. 2 rectangles drawn and labeled  
b. 4 square units, 6 square units
2. Yes; explanations will vary.
3. a. 5 cm by 5 cm square drawn and labeled  
b. 25 sq cm  
c. Different rectangle drawn  
d. Katie's square

## Lesson 21

### Sprint

#### Side A

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

#### Side B

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

**Problem Set**

1. a. 4 rectangles sketched and labeled  
b. Answers will vary.
2. a. 4 rectangles sketched and labeled  
b. Answers will vary.
3. a. 2, 2 cm, 3 cm, 6 sq cm  
5, 2 cm, 8 cm, 16 sq cm; 3 cm 7 cm, 21 sq cm; 4 cm, 6 cm, 24 sq cm; 5 cm, 5 cm, 25 sq cm  
b. Yes, explanations will vary.
4. Answers will vary.

**Exit Ticket**

Answers will vary.

**Homework**

1. a. 3 rectangles shaded and labeled  
b. 6 sq cm, 10 sq cm, 12 sq cm  
c. Answers will vary.
2. a. 4, 2 units, 7 units, 14 sq units; 3 units, 6 units, 18 sq units; 4 units, 5 units, 20 sq units  
b. Explanations will vary.
3. Answers will vary.

## Lesson 22

### Sprint

#### Side A

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

#### Side B

- |        |        |        |        |
|--------|--------|--------|--------|
| 1. 4   | 12. 24 | 23. 2  | 34. 7  |
| 2. 8   | 13. 28 | 24. 10 | 35. 8  |
| 3. 12  | 14. 32 | 25. 3  | 36. 9  |
| 4. 16  | 15. 36 | 26. 2  | 37. 6  |
| 5. 20  | 16. 7  | 27. 1  | 38. 7  |
| 6. 3   | 17. 6  | 28. 10 | 39. 44 |
| 7. 2   | 18. 8  | 29. 5  | 40. 11 |
| 8. 4   | 19. 10 | 30. 3  | 41. 48 |
| 9. 1   | 20. 9  | 31. 3  | 42. 12 |
| 10. 5  | 21. 1  | 32. 4  | 43. 52 |
| 11. 40 | 22. 5  | 33. 9  | 44. 13 |

**Problem Set**

1. Line plot created
2. Answers will vary.
3. No
4. No; explanations will vary.
5. Explanations will vary.

**Exit Ticket**

Answers will vary.

**Homework**

1. a. Explanations will vary; no  
b. No; whole number side lengths  
c. 8; explanations will vary.
2. No; explanations will vary.
3. Explanations will vary.

## Lesson 23

### Sprint

#### Side A

1.	10	12.	35	23.	10	34.	8
2.	15	13.	40	24.	2	35.	7
3.	20	14.	45	25.	3	36.	9
4.	25	15.	50	26.	10	37.	6
5.	5	16.	8	27.	5	38.	8
6.	2	17.	7	28.	1	39.	55
7.	3	18.	9	29.	2	40.	11
8.	5	19.	6	30.	3	41.	3
9.	1	20.	10	31.	6	42.	12
10.	4	21.	5	32.	7	43.	60
11.	30	22.	1	33.	9	44.	14

#### Side B

1.	5	12.	30	23.	2	34.	7
2.	10	13.	35	24.	10	35.	8
3.	15	14.	40	25.	3	36.	9
4.	20	15.	45	26.	2	37.	6
5.	25	16.	7	27.	1	38.	7
6.	3	17.	6	28.	10	39.	55
7.	2	18.	8	29.	5	40.	11
8.	4	19.	10	30.	3	41.	60
9.	1	20.	9	31.	3	42.	12
10.	5	21.	1	32.	4	43.	65
11.	50	22.	5	33.	9	44.	13

**Problem Set**

- |           |          |
|-----------|----------|
| 1. 6 cm   | 4. 96 in |
| 2. 184 in | 5. \$40  |
| 3. 8 ft   | 6. Yes   |

**Exit Ticket**

9 cm

**Homework**

- |           |          |
|-----------|----------|
| 1. 9 in   | 4. 99 in |
| 2. 144 in | 5. 24 in |
| 3. 250 ft | 6. 76 in |

## Lesson 24

### Pattern Sheet

6	12	18	24
30	36	42	48
54	60	30	36
30	42	30	48
30	54	30	60
36	30	36	42
36	48	36	54
36	42	36	42
48	42	54	42
48	36	48	42
48	54	54	36
54	42	54	48
54	48	36	54
42	54	36	48
54	42	36	48

### Problem Set

- A. Width and length will vary.
- B. Width and length will vary.
- C. Width and length will vary.
- D. Width and length will vary.
- E. 28; width and length will vary.
- F. Width and length will vary.
- G. 8; width and length will vary.
- H. Extra body parts and information will vary.
- I. Extra body parts and information will vary.
- J. Estimated and measured with string
- K. Width and length will vary.
- L. Estimated and measured with string
- M. Width and length will vary.
- N. Estimated and measured with string
- O. Width and length will vary.
- P. Extra items and information will vary.
- Q. Extra items and information will vary.

**Exit Ticket**

Answers will vary.

**Homework**

1. 6 in
2. a. Answers will vary.  
b. Answers will vary.  
c. Answers will vary.
3. a. 1 cm by 2 cm  
1 cm by 4 cm or 2 cm by 3 cm  
1 cm by 6 cm, 2 cm by 5 cm, or 3 cm by 4 cm  
b. 1 cm by 5 cm, 2 cm by 4 cm, or 3 cm by 3 cm  
1 cm by 9 cm, 2 cm by 8 cm, 3 cm by 7 cm, 4 cm by 6 cm, or 5 cm by 5 cm  
1 cm by 13 cm, 2 cm by 12 cm, 3 cm by 11 cm, 4 cm by 10 cm, 5 cm by 9 cm, 6 cm by 8 cm, or  
7 cm by 7 cm

## Lesson 25

### Sprint

#### Side A

1.	12	12.	42	23.	10	34.	8
2.	18	13.	48	24.	2	35.	7
3.	24	14.	54	25.	3	36.	9
4.	30	15.	60	26.	10	37.	6
5.	6	16.	8	27.	5	38.	8
6.	2	17.	7	28.	1	39.	66
7.	3	18.	9	29.	2	40.	11
8.	5	19.	6	30.	3	41.	72
9.	1	20.	10	31.	6	42.	12
10.	4	21.	5	32.	7	43.	84
11.	36	22.	1	33.	9	44.	14

#### Side B

1.	6	12.	36	23.	2	34.	7
2.	12	13.	42	24.	10	35.	8
3.	18	14.	48	25.	3	36.	9
4.	24	15.	54	26.	2	37.	6
5.	30	16.	7	27.	1	38.	7
6.	3	17.	6	28.	10	39.	66
7.	2	18.	8	29.	5	40.	11
8.	4	19.	10	30.	3	41.	72
9.	1	20.	9	31.	3	42.	12
10.	5	21.	1	32.	4	43.	78
11.	60	22.	5	33.	9	44.	13

**Problem Set**

Pictures and labels will vary.

**Exit Ticket**

1. a. Answers will vary.  
b. Answers will vary.
2. Answers will vary.

**Homework**

- A. Answer provided
- B.  $P = 4 \times 2 \text{ cm}$ , or  $P = 2 \text{ cm} + 2 \text{ cm} + 2 \text{ cm} + 2 \text{ cm}$   
 $P = 8 \text{ cm}$
- C.  $P = 8 \text{ cm} + 6 \text{ cm} + 8 \text{ cm} + 6 \text{ cm}$   
 $P = 28 \text{ cm}$
- D.  $P = 2 \text{ cm} + 5 \text{ cm} + 2 \text{ cm} + 5 \text{ cm}$   
 $P = 14 \text{ cm}$
- E.  $P = 2 \text{ cm} + 5 \text{ cm} + 2 \text{ cm} + 5 \text{ cm}$   
 $P = 14 \text{ cm}$
- F.  $P = 7 \text{ cm} + 2 \text{ cm} + 7 \text{ cm} + 2 \text{ cm}$   
 $P = 18 \text{ cm}$
- G.  $P = 7 \text{ cm} + 2 \text{ cm} + 7 \text{ cm} + 2 \text{ cm}$   
 $P = 18 \text{ cm}$

## Lesson 26

### Pattern Sheet

7	14	21	28
35	42	49	56
63	70	35	42
35	49	35	56
35	63	35	70
42	35	42	49
42	56	42	63
42	49	42	49
56	49	63	49
56	42	56	49
56	63	63	42
63	49	63	56
63	56	42	63
49	63	42	56
63	49	42	56

### Problem Set

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

### Exit Ticket

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

**Homework**

1. a. 16 cm  
b. 16 cm  
c. 16 sq cm  
d. 15 sq cm  
e. Explanations will vary.
2. a. Answers will vary.  
b. Yes; explanations will vary.  
c. 4 cm by 10 cm

## Lesson 27

### Sprint

#### Side A

- |        |        |        |        |
|--------|--------|--------|--------|
| 1. 14  | 12. 49 | 23. 10 | 34. 8  |
| 2. 21  | 13. 56 | 24. 2  | 35. 7  |
| 3. 28  | 14. 63 | 25. 3  | 36. 9  |
| 4. 35  | 15. 70 | 26. 10 | 37. 6  |
| 5. 7   | 16. 8  | 27. 5  | 38. 8  |
| 6. 2   | 17. 7  | 28. 1  | 39. 77 |
| 7. 3   | 18. 9  | 29. 2  | 40. 11 |
| 8. 5   | 19. 6  | 30. 3  | 41. 84 |
| 9. 1   | 20. 10 | 31. 6  | 42. 12 |
| 10. 4  | 21. 5  | 32. 7  | 43. 98 |
| 11. 42 | 22. 1  | 33. 9  | 44. 14 |

#### Side B

- |        |        |        |        |
|--------|--------|--------|--------|
| 1. 7   | 12. 42 | 23. 2  | 34. 7  |
| 2. 14  | 13. 49 | 24. 10 | 35. 8  |
| 3. 21  | 14. 56 | 25. 3  | 36. 9  |
| 4. 28  | 15. 63 | 26. 2  | 37. 6  |
| 5. 35  | 16. 7  | 27. 1  | 38. 7  |
| 6. 3   | 17. 6  | 28. 10 | 39. 77 |
| 7. 2   | 18. 8  | 29. 5  | 40. 11 |
| 8. 4   | 19. 10 | 30. 3  | 41. 84 |
| 9. 1   | 20. 9  | 31. 3  | 42. 12 |
| 10. 5  | 21. 1  | 32. 4  | 43. 91 |
| 11. 70 | 22. 5  | 33. 9  | 44. 13 |

**Problem Set****Part A**

1. Evaluations will vary.
2. Answers and calculations will vary.
3. Answers and calculations will vary.

**Part B**

4. Evaluations will vary.

**Exit Ticket**

1. Rectangle A: 5, 5; 20 cm; 25 sq cm  
Rectangle B: 8, 2; 20 cm; 16 sq cm
2. Answers will vary.

**Homework**

1. Rectangle A: 6, 6; 24 cm; 36 sq cm  
Rectangle B: 4, 8; 24 cm; 32 sq cm  
Rectangle C: 11, 1; 24 cm; 11 sq cm  
Rectangle D: 5, 5; 20 cm; 25 sq cm  
Rectangle E: 2, 8; 20 cm; 16 sq cm  
Rectangle F: 4, 6; 20 cm; 24 sq cm
2. Answers will vary.
3. Answers will vary.
4. A, D; A

## Lesson 28

### Pattern Sheet

8	16	24	32
40	48	56	64
72	80	40	48
40	56	40	64
40	72	40	80
48	40	48	56
48	64	48	72
48	56	48	56
64	56	72	56
64	48	64	56
64	72	72	48
72	56	72	64
72	64	48	72
56	72	48	64
72	56	48	64

**Problem Set**

1. a. 7 yd by 9 yd rectangle drawn and labeled correctly  
b. 63 sq yd  
c. 32 yd
2. a. 8 cm by 8 cm square drawn and labeled correctly  
b. 64 sq cm  
c. 32 cm  
d. 64 cm
3. a. Drawings will vary.  
b. 9 in  
c. 34 in  
d. 217 sq in
4. a. Drawings will vary.  
b. 8 ft  
c. 72 sq ft  
d. 48 sq ft

**Exit Ticket**

- a. 6 ft by 8 ft rectangle drawn and labeled correctly  
b. 48 sq ft  
c. 28 ft

**Homework**

1. a. 7 cm by 7 cm square drawn and labeled correctly  
b. 49 sq cm  
c. 28 cm  
d. 42 cm
2. a. Drawings will vary.  
b. 6 ft  
c. 18 sq ft  
d. 54 sq ft

## Lesson 29

### Sprint

#### Side A

1.	16	12.	56	23.	10	34.	8
2.	24	13.	64	24.	2	35.	7
3.	32	14.	72	25.	3	36.	9
4.	40	15.	80	26.	10	37.	6
5.	8	16.	8	27.	5	38.	8
6.	2	17.	7	28.	1	39.	88
7.	3	18.	9	29.	2	40.	11
8.	5	19.	6	30.	3	41.	96
9.	1	20.	10	31.	6	42.	12
10.	4	21.	5	32.	7	43.	112
11.	48	22.	1	33.	9	44.	14

#### Side B

1.	8	12.	48	23.	2	34.	7
2.	16	13.	56	24.	10	35.	8
3.	24	14.	64	25.	3	36.	9
4.	32	15.	72	26.	2	37.	6
5.	40	16.	7	27.	1	38.	7
6.	3	17.	1	28.	10	39.	88
7.	2	18.	8	29.	5	40.	11
8.	4	19.	10	30.	3	41.	96
9.	1	20.	9	31.	3	42.	12
10.	5	21.	1	32.	4	43.	104
11.	80	22.	5	33.	9	44.	13

**Problem Set**

- |              |           |
|--------------|-----------|
| 1. a. 56 in  | 2. 25 ft  |
| b. 144 sq in | 3. 36 cm  |
| c. 72 in     | 4. 700 yd |

**Exit Ticket**

64 cm

**Homework**

- |              |             |
|--------------|-------------|
| 1. a. 48 in  | 2. a. 36 cm |
| b. 128 sq in | b. 72 sq cm |
| c. 256 sq in | 3. 800 yd   |

## Lesson 30

### Pattern Sheet

9	18	27	36
45	54	63	72
81	90	45	54
45	63	45	72
45	81	45	90
54	45	54	63
54	72	54	81
54	63	54	63
72	63	81	63
72	54	72	63
72	81	81	54
81	63	81	72
81	72	54	81
63	81	54	72
81	63	54	72

### Problem Set

Answers will vary.

### Exit Ticket

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

### Homework

Answers will vary.

## Lesson 31

### Sprint

#### Side A

1.	18	12.	63	23.	10	34.	8
2.	27	13.	72	24.	2	35.	7
3.	36	14.	81	25.	3	36.	9
4.	45	15.	90	26.	10	37.	6
5.	9	16.	8	27.	5	38.	8
6.	2	17.	7	28.	1	39.	99
7.	3	18.	9	29.	2	40.	11
8.	5	19.	6	30.	3	41.	108
9.	1	20.	10	31.	6	42.	12
10.	4	21.	5	32.	7	43.	126
11.	54	22.	1	33.	9	44.	14

#### Side B

1.	9	12.	54	23.	2	34.	7
2.	18	13.	63	24.	10	35.	8
3.	27	14.	72	25.	3	36.	9
4.	36	15.	81	26.	2	37.	6
5.	45	16.	7	27.	1	38.	7
6.	3	17.	6	28.	10	39.	99
7.	2	18.	8	29.	5	40.	11
8.	4	19.	10	30.	3	41.	108
9.	1	20.	9	31.	3	42.	12
10.	5	21.	1	32.	4	43.	117
11.	90	22.	5	33.	9	44.	13

**Problem Set**

Answers will vary.

**Exit Ticket**

Answers will vary.

**Homework**

1. a. 18 square units  
b. 9 square units  
c. Half of the rectangle shaded  
d. Answers will vary.
2. Explanations will vary.
3. Answers will vary.

## Lesson 32

### Sprint

#### Side A

1.	2	12.	6	23.	14	34.	16
2.	4	13.	9	24.	25	35.	18
3.	6	14.	5	25.	30	36.	35
4.	4	15.	10	26.	35	37.	40
5.	8	16.	15	27.	20	38.	45
6.	12	17.	7	28.	24	39.	28
7.	6	18.	14	29.	28	40.	32
8.	12	19.	9	30.	15	41.	36
9.	8	20.	18	31.	18	42.	21
10.	16	21.	10	32.	21	43.	24
11.	3	22.	12	33.	14	44.	27

#### Side B

1.	5	12.	4	23.	35	34.	40
2.	10	13.	6	24.	10	35.	45
3.	15	14.	4	25.	12	36.	14
4.	3	15.	8	26.	14	37.	16
5.	6	16.	12	27.	15	38.	18
6.	9	17.	6	28.	18	39.	21
7.	7	18.	12	29.	21	40.	24
8.	14	19.	8	30.	20	41.	27
9.	9	20.	16	31.	24	42.	28
10.	18	21.	25	32.	28	43.	32
11.	2	22.	30	33.	35	44.	36

**Problem Set**

1. a. Answers will vary.  
b. No, explanations will vary.
2. a. A, C, D  
b. Answers will vary.  
c. Answers will vary.
3. Circle shaded correctly
4. Yes, explanations will vary.

**Exit Ticket**

1. Yes; explanations will vary.
2. Circle shaded

**Homework**

1. Circles shaded correctly
2. Answers will vary.
3. No; explanations will vary.
4. a. Marissa; explanations will vary.  
b. Explanations will vary.
5. Circle shaded

## Lesson 33

### Sprint

#### Side A

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

#### Side B

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

**Problem Set**

Answers will vary.

**Exit Ticket**

Answers will vary.

**Homework**

Answers will vary.

## Lesson 34

### Sprint

#### Side A

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

#### Side B

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

### Problem Set

Summer Math Review Calendar