3
GRADE

Mathematics Curriculum

Answer Key

GRADE 3 • MODULE 6

Collecting and Displaying Data

Lesson 1

Problem Set

1. Tally chart will vary.

2. Answers will vary.

3. a. Picture graphs will vary

   b. Picture graphs will vary

4. a. 2 students

   b. 1 and half hearts drawn correctly; 2 + 1 = 3

   c. 14 students; 7 × 2 = 14

   d. Answers will vary.

Exit Ticket

a. Football; hockey

b. 9

c. 3; 12 − 9 = 3

d. 33

Homework

1. 22

2. Answer provided; 4 circles; 2 circles; 8 circles; 2 circles

   a. Fish; lizards

   b. 8

   c. 2

3. 3 rectangles; 2 rectangles; 1 rectangle; 4 rectangles; 1 rectangle

   a. 2 students

   b. 10 students; 5 × 2 = 10

   c. 3; 8 − 2 = 6

Lesson 2

Problem Set

1. Answer provided; 2 units of 4 drawn; 6 units of 4 drawn; 8 units of 4 drawn

2. Answers will vary.

3. a. Answer provided; 2 units of 4 drawn; 6 units of 4 drawn; 8 units of 4 drawn

    b. Answer provided; 1 unit of 8 drawn; 3 units of 8 drawn; 4 units of 8 drawn

    c. Answers will vary.

    d. 20

    e. 10

    f. Answers will vary.

    g. Answers will vary.

Exit Ticket

a. 3 units of 4 drawn; 4 units of 4 drawn; 5 units of 4 drawn; 2 units of 4 drawn

b. Answers will vary.

Homework

1. Answer provided; 8 units of 2 drawn; 6 units of 2 drawn; 2 units of 2 drawn

2. Answers will vary.

3. a. Answer provided; 8 units of 2 drawn; 6 units of 2 drawn; 2 units of 2 drawn

    b. Answer provided;4 units of 4 drawn; 3 units of 4 drawn; 1 unit of 4 drawn

    c. Answers will vary.

    d. Answers will vary.

    e. $6 \times 2 = 12$

    f. $3 \times 4 = 12$

    g. Number and size of units; explanations will vary.

Lesson 3

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

1. Answer provided; 8 units colored; 6 and a half units colored; 9 units colored

    a. 2

    b. 9 + 16 + 13 + 18 = 56

    c. 6; 22 − 16 = 6

2. a. $34

    b. February, April, and May

    c. $17; $40 − $23 = $17

    d. April; March

3. February: $30; March: $46; April: $23; May: $34; June: $40

4. Intervals drawn correctly on the number line; each day plotted and labeled correctly on number line

5. a. Monday, Tuesday, and Thursday; 50 min

    b. 30 min

Exit Ticket

a. Intervals drawn correctly on the number line; each flavor plotted and labeled correctly on the number line

b. 25 + 35 + 50 = 110

Homework

1. a. 14 students

    b. 4 students; 18 − 14 = 4

    c. Both

2. a. Week 4; Week 3

    b. 15 liters

    c. 50L + 40L = 90L

    d. 210 liters

    e. More

3. Week 1: 55 liters; Week 2: 50 liters; Week 3: 40 liters; Week 4: 65 liters

Lesson 4

Problem Set

1. a. Bar graph drawn correctly with appropriate scale

    b. Answers will vary.

    c. 150

    d. 150

2. a. 240

    b. 80

Exit Ticket

a. 530

b. 150

Homework

1. 68; 62; 57; 24

    a. Bar graph drawn correctly with scale labeled appropriately by 10

    b. 11

    c. 171; work shown correctly

2. a. 5

    b. $118

    c. 11

Lesson 5

Problem Set

1.   a.   Answers will vary.
   b.   Answers will vary.
   c.   Answers will vary.
2.   a.   Whole and half inches labeled on paper strip
   b.   2; 4; 2
   c.   Answers will vary.
3.   Explanations will vary.

Exit Ticket

a.   Whole and quarter inches labeled on paper strip
b.   Answers will vary.

Homework

1.   a.   Red pencil; $6\frac{3}{4}$
   b.   Green pencil; explanations will vary.
2.   a.   Whole and half inches labeled on paper strip
   b.   2; 4; 2; 1
3.   Explanations will vary.

Lesson 6

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. a. 15

   b. 6

   c. No, explanations will vary.

   d. 4

2. a. 30

   b. No, explanations will vary.

   c. Length plotted correctly on line plot

Exit Ticket

a. 24

b. 9

c. Yes, explanations will vary.

Homework

1. a. 4

   b. 20; explanations will vary.

   c. 9

   d. 9

2. a. 24

   b. No, explanations will vary.

   c. Yes, explanations will vary.

Lesson 7

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. Line plot completed; Heights of Bean Plants; inches; 1 bean plant

b. 14 bean plants

c. 6 bean plants

d. $1\frac{3}{4}$ inches; 4

e. No; explanations will vary.

f. Yes; explanations will vary.

Exit Ticket

Line plot completed; Length of Mice; inches

Homework

a. Line plot completed; Heights of Buildings; inches; 1 building

b. 2

c. 7

d. 25

e. No; explanations will vary.

Lesson 8

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

a. Line plot completed; Widths of Leaves; inches; x = 1 leaf

b. Answers will vary.

c. 4

d. Explanations will vary.

Exit Ticket

a. 23 inches, $23\frac{1}{4}$ inches, $23\frac{1}{2}$ inches

b. 2 inches

c. 3

Homework

a.   Line plot completed; Distance Traveled; inches; x = 1 marshmallow

b.   Answers will vary.

c.   2

d.   Explanations will vary.

Lesson 9

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. 24

    b. Picture graph completed; scale drawn

2. a. 8

    b. 4

3. a. Line plot completed; explanations will vary.

    b. 24; explanations will vary.

    c. $2\frac{3}{4}$ inches; 6

    d. 2

Exit Ticket

a. 12

b. 4

Homework

1. Picture graph completed; scale drawn

2. a. $90

    b. $36

    c. 7

    d. $12