



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;  $7 \times 2 = 14$
  - 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;  $5 \times 2 = 10$
  - 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**

- Answer provided; 8 units colored; 6 and a half units colored; 9 units colored
  - 2
  - $9 + 16 + 13 + 18 = 56$
  - 6;  $22 - 16 = 6$
- \$34
  - February, April, and May
  - \$17;  $\$40 - \$23 = \$17$
  - April; March
- February: \$30; March: \$46; April: \$23; May: \$34; June: \$40
- Intervals drawn correctly on the number line; each day plotted and labeled correctly on number line
- Monday, Tuesday, and Thursday; 50 min
  - 30 min

**Exit Ticket**

- Intervals drawn correctly on the number line; each flavor plotted and labeled correctly on the number line
- $25 + 35 + 50 = 110$

**Homework**

- 14 students
  - 4 students;  $18 - 14 = 4$
  - Both
- Week 4; Week 3
  - 15 liters
  - $50L + 40L = 90L$
  - 210 liters
  - More
- Week 1: 55 liters; Week 2: 50 liters; Week 3: 40 liters; Week 4: 65 liters

## Lesson 4

### Problem Set

- Bar graph drawn correctly with appropriate scale
  - Answers will vary.
  - 150
  - 150
- 240
  - 80

### Exit Ticket

- 530
- 150

### Homework

- 68; 62; 57; 24
  - Bar graph drawn correctly with scale labeled appropriately by 10
  - 11
  - 171; work shown correctly
- 5
  - \$118
  - 11

## Lesson 5

### Problem Set

- Answers will vary.
  - Answers will vary.
  - Answers will vary.
- Whole and half inches labeled on paper strip
  - 2; 4; 2
  - Answers will vary.
- Explanations will vary.

### Exit Ticket

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

### Homework

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

- 15
  - 6
  - No, explanations will vary.
  - 4
- 30
  - No, explanations will vary.
  - 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

- Line plot completed; Heights of Bean Plants; inches; 1 bean plant
- 14 bean plants
- 6 bean plants
- $1\frac{3}{4}$  inches; 4
- No; explanations will vary.
- 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

- Line plot completed; Widths of Leaves; inches;  $x = 1$  leaf
- Answers will vary.
- 4
- Explanations will vary.

### Exit Ticket

- 23 inches,  $23\frac{1}{4}$  inches,  $23\frac{1}{2}$  inches
- 2 inches
- 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

- 24
  - Picture graph completed; scale drawn
- 8
  - 4
- Line plot completed; explanations will vary.
  - 24; explanations will vary.
  - $2\frac{3}{4}$  inches; 6
  - 2

**Exit Ticket**

- a. 12
- b. 4

**Homework**

- 1. Picture graph completed; scale drawn
- 2.
  - a. \$90
  - b. \$36
  - c. 7
  - d. \$12