

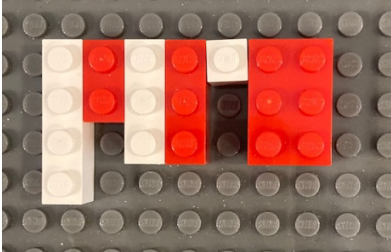
**Brick Math**  
**Counting and Cardinality**  
**Chapter Assessment Answer Key**

**Chapter 1**

1. A pattern is made with a recurring form or design with objects or with numbers.

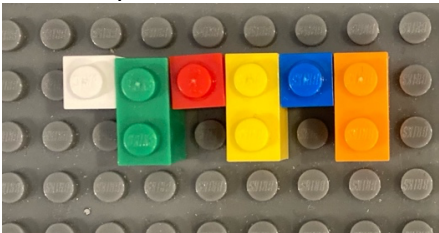
2. Answers will vary. One example:

Color pattern: white, red, white, red, white, red



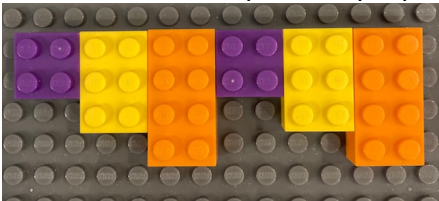
3. Answers will vary. One example:

Number pattern: 1, 2, 1, 2, 1, 2



4. Answers will vary. One example:

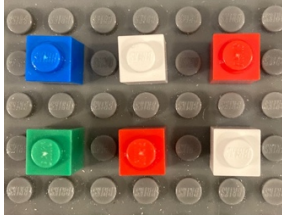
Color and number pattern: purple 4, yellow 6, orange 8, purple 4, yellow 6, orange 8



**Chapter 2**

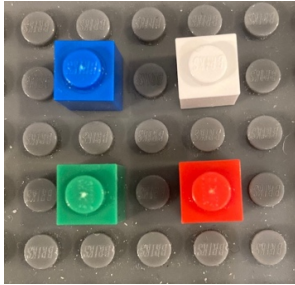
1. 10 studs

2. Answers will vary. One example:

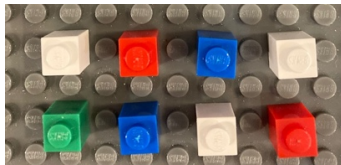


3. Answers will vary. One example:

Model 1: 4



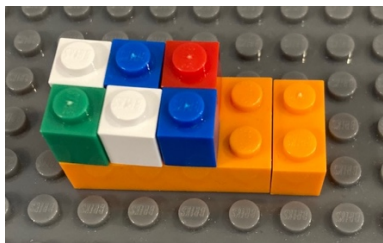
Model 2: 8



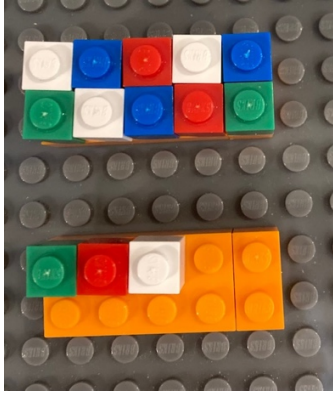
Model 2 has more

### Chapter 3

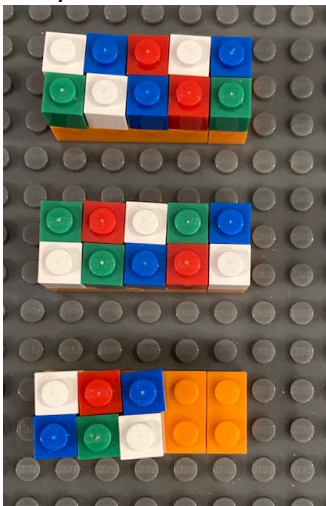
1. My ten-frame has 6 studs covered. The number of studs not covered is 4.



2. My model shows 10 1x1 bricks on one ten-frame and 3 1x1 bricks on the other ten-frame. Together my ten-frames show the number 13.



3. My model has 2 tens. My model has 6 ones. My model shows the number 26.



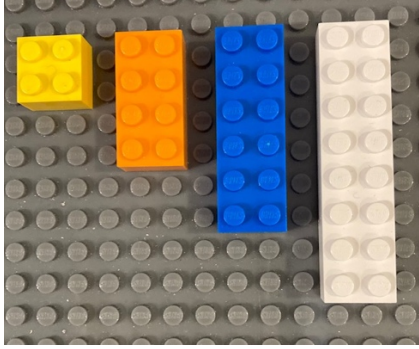
4. Model A shows more (5)

5. Model B shows less (4)

## Chapter 4

1. 3, 6, 9, 12

2. 4, 8, 12, 16



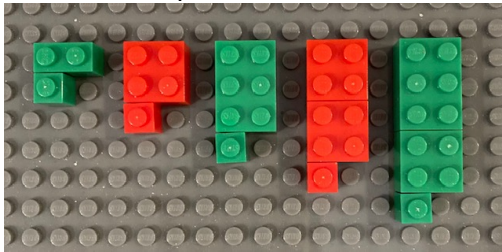
3. You will skip four times to get to 20: 5, 10, 15, 20

## Chapter 5

1. 3, 6, 9, 12, 15 is a skip-counting pattern by 3s. The pattern is neither odd nor even.

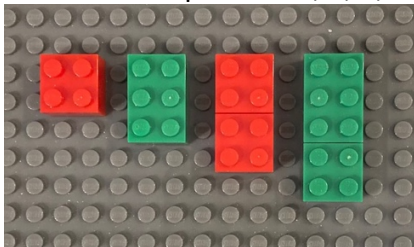
2. Answers will vary. One example:

Odd number pattern: 3, 5, 7, 9, 11

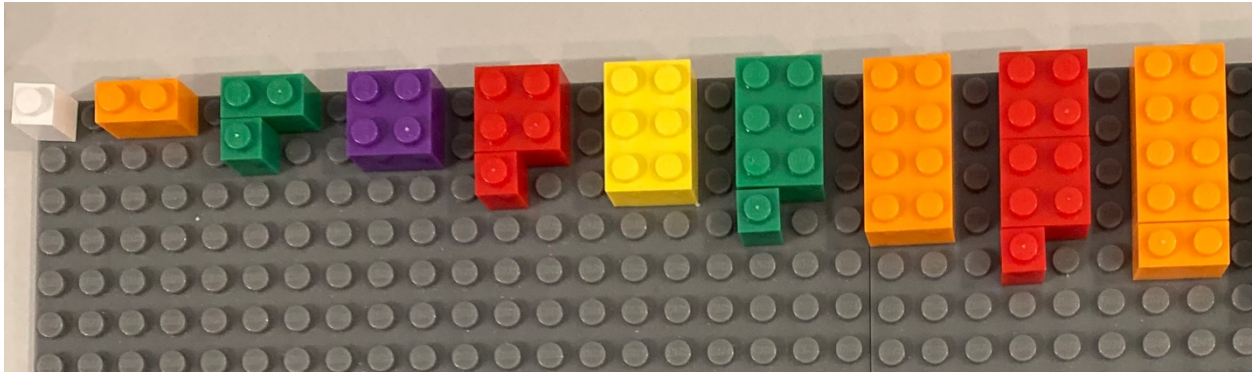


3. Answers will vary. One example:

Even number pattern: 4, 6, 8, 10



4.



Any of these even numbers can be circled: 2, 4, 6, 8, or 10

The odd numbers use one 1x1 brick on the end of each number model and the even numbers don't.

### Challenge Assessment:

Brick number line:



1. From left, numbers are: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
2. Jumps of two, starting at 1 would show circled numbers of **1, 3, 5, 7, 9, and 11**
3. Jumps of five, starting at 1 would show circled numbers of **1, 5, and 10**
4. It will take **4** jumps to get from 6 to 12 if jumping by twos: 6, 8, 10, 12
5. If you start at 4 and jump three times, you will end on **12**: 4, 8, 12

## Chapter 6

1. The model on the left shows 6, in the shape of a rectangle. The model on the right shows 9, in the shape of a square. This shows that 9 is a square number and 6 is not.



2. **4** is the square number in this set. Its model is in the shape of a square, and none of the other numbers can be modeled as a square.

3. Answers will vary. One example:

The model shows the number 12, modeled as a rectangle. It is a rectangular model because 12 is an even number but not a square number.



## Chapter 7

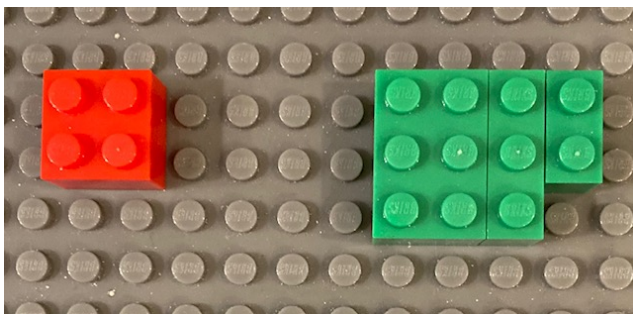
1. The math symbol for *less than* is  $<$

2. The math symbol for *more than* is  $>$

3. The math symbol for *the same amount* is  $=$

4. Answers will vary. One example:

The model on the left shows 4. The model on the right shows 10.



*Greater than* sentence:  $10 > 4$

*Less than* sentence:  $4 < 10$