Questions: Similar Shadows

The height of the little bat will not change throughout the interactive. If you begin by measuring the little bat and its shadow as they appear when you open the interactive, you can determine the unknown heights of the larger objects at that initial setting. But what happens to the length of the shadows and the value of the ratios when you select a different time of day?

Initial Setting

Little Bat and Big Bat

1. How tall is the little bat? __________
2. How long is its shadow? __________
3. What’s the decimal value of this ratio: bat’s height to shadow’s length?
   __________
4. How long is the big object’s shadow? __________
5. How tall is the big object? __________
6. What’s the decimal value of this ratio: object’s height to shadow’s length?
   __________

Little Bat and Street Lamp

1. How tall is the little bat? __________
2. How long is its shadow? __________
3. What’s the decimal value of this ratio: bat’s height to shadow’s length?
   __________
4. How long is the big object’s shadow? __________
5. How tall is the big object? __________
6. What’s the decimal value of this ratio: object’s height to shadow’s length?
   __________

Little Bat and Basketball Goal

1. How tall is the little bat? __________
2. How long is its shadow? __________
3. What's the decimal value of this ratio: bat's height to shadow's length?

4. How long is the big object's shadow?

5. How tall is the big object?

6. What's the decimal value of this ratio: object's height to shadow's length?

Little Bat and Sign

1. How tall is the little bat?

2. How long is its shadow?

3. What's the decimal value of this ratio: bat's height to shadow's length?

4. How long is the big object's shadow?

5. How tall is the big object?

6. What's the decimal value of this ratio: object's height to shadow's length?

Little Bat and The Babe

1. How tall is the little bat?

2. How long is its shadow?

3. What's the decimal value of this ratio: bat's height to shadow's length?

4. How long is the big object's shadow?

5. How tall is the big object?

6. What's the decimal value of this ratio: object's height to shadow's length?

Dawn

Little Bat and Big Bat

1. How tall is the little bat?

2. How long is its shadow?
3. What’s the decimal value of this ratio: bat’s height to shadow’s length?

__________

4. How long is the big object’s shadow? __________

5. How tall is the big object? __________

6. What’s the decimal value of this ratio: object’s height to shadow’s length?

__________

Little Bat and Street Lamp

1. How tall is the little bat? __________

2. How long is its shadow? __________

3. What’s the decimal value of this ratio: bat’s height to shadow’s length?

__________

4. How long is the big object’s shadow? __________

5. How tall is the big object? __________

6. What’s the decimal value of this ratio: object’s height to shadow’s length?

__________

Little Bat and Basketball Goal

1. How tall is the little bat? __________

2. How long is its shadow? __________

3. What’s the decimal value of this ratio: bat’s height to shadow’s length?

__________

4. How long is the big object’s shadow? __________

5. How tall is the big object? __________

6. What’s the decimal value of this ratio: object’s height to shadow’s length?

__________

Little Bat and Sign

1. How tall is the little bat? __________

2. How long is its shadow? __________

3. What’s the decimal value of this ratio: bat’s height to shadow’s length?

__________
4. How long is the big object’s shadow? __________
5. How tall is the big object? __________
6. What’s the decimal value of this ratio: object’s height to shadow’s length?
    __________

Little Bat and The Babe

1. How tall is the little bat? __________
2. How long is its shadow? __________
3. What’s the decimal value of this ratio: bat’s height to shadow’s length?
    __________
4. How long is the big object’s shadow? __________
5. How tall is the big object? __________
6. What’s the decimal value of this ratio: object’s height to shadow’s length?
    __________

Midmorning

Little Bat and Big Bat

1. How tall is the little bat? __________
2. How long is its shadow? __________
3. What’s the decimal value of this ratio: bat’s height to shadow’s length?
    __________
4. How long is the big object’s shadow? __________
5. How tall is the big object? __________
6. What’s the decimal value of this ratio: object’s height to shadow’s length?
    __________

Little Bat and Street Lamp

1. How tall is the little bat? __________
2. How long is its shadow? __________
3. What’s the decimal value of this ratio: bat’s height to shadow’s length?
    __________
4. How long is the big object’s shadow? __________
5. How tall is the big object? __________
6. What’s the decimal value of this ratio: object’s height to shadow’s length? __________

**Little Bat and Basketball Goal**
1. How tall is the little bat? __________
2. How long is its shadow? __________
3. What’s the decimal value of this ratio: bat’s height to shadow’s length? __________
4. How long is the big object’s shadow? __________
5. How tall is the big object? __________
6. What’s the decimal value of this ratio: object’s height to shadow’s length? __________

**Little Bat and Sign**
1. How tall is the little bat? __________
2. How long is its shadow? __________
3. What’s the decimal value of this ratio: bat’s height to shadow’s length? __________
4. How long is the big object’s shadow? __________
5. How tall is the big object? __________
6. What’s the decimal value of this ratio: object’s height to shadow’s length? __________

**Little Bat and The Babe**
1. How tall is the little bat? __________
2. How long is its shadow? __________
3. What’s the decimal value of this ratio: bat’s height to shadow’s length? __________
4. How long is the big object’s shadow? __________
5. How tall is the big object? __________
6. What's the decimal value of this ratio: object’s height to shadow’s length?

__________

Late Afternoon

Little Bat and Big Bat

1. How tall is the little bat? __________
2. How long is its shadow? __________
3. What’s the decimal value of this ratio: bat’s height to shadow’s length?

__________
4. How long is the big object’s shadow? __________
5. How tall is the big object? __________
6. What’s the decimal value of this ratio: object’s height to shadow’s length?

__________

Little Bat and Street Lamp

1. How tall is the little bat? __________
2. How long is its shadow? __________
3. What’s the decimal value of this ratio: bat’s height to shadow’s length?

__________
4. How long is the big object’s shadow? __________
5. How tall is the big object? __________
6. What’s the decimal value of this ratio: object’s height to shadow’s length?

__________

Little Bat and Basketball Goal

1. How tall is the little bat? __________
2. How long is its shadow? __________
3. What’s the decimal value of this ratio: bat’s height to shadow’s length?

__________
4. How long is the big object’s shadow? __________
5. How tall is the big object? __________
6. What’s the decimal value of this ratio: object’s height to shadow’s length?

Little Bat and Sign

1. How tall is the little bat? __________
2. How long is its shadow? __________
3. What’s the decimal value of this ratio: bat’s height to shadow’s length?

Little Bat and The Babe

1. How tall is the little bat? __________
2. How long is its shadow? __________
3. What’s the decimal value of this ratio: bat’s height to shadow’s length?

Little Bat and Sign

4. How long is the big object’s shadow? __________
5. How tall is the big object? __________
6. What’s the decimal value of this ratio: object’s height to shadow’s length?