## Unit 4 Lesson 16: Equivalent Exponential Expressions

### 1 Up or Down? (Warm up)

#### Student Task Statement

Find the values of and for different values of . What patterns do you notice?

|  |  |  |
| --- | --- | --- |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |

### 2 What's the Value?

#### Student Task Statement

Evaluate each expression for the given value of .

1. when is 10
2. when is
3. when is 4
4. when is
5. when is 1
6. when is

### 3 Exponent Experimentation

#### Student Task Statement

Find a solution to each equation in the list. (Numbers in the list may be a solution to more than one equation, and not all numbers in the list will be used.)

List:

1

2

3

4

5

6

8



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