Integer Bases and Zero Exponents  
 Answers

**Number**

**Unit 3 Line Master 1c**

1. For example:

|  |  |
| --- | --- |
| **Power** | **Standard Form** |
|  | 16 |
|  | 8 |
|  | 4 |
|  | 2 |
|  | 1 |

2.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Power** | **Base** | **Exponent** | **Expanded Form** | **Standard Form** |
|  | 2 | 3 | 2 × 2 × 2 | 8 |
|  | ‒2 | 3 | (‒2) × (‒2) × (‒2) | ‒8 |
|  | 2 | 3 | ‒(2 × 2 × 2) | ‒8 |
|  | 2 | 3 | ‒(2 × 2 × 2) | ‒8 |
|  | ‒2 | 3 | ‒((‒2) × (‒2) × (‒2)) | 8 |

3.

|  |  |
| --- | --- |
| **Positive** | **Negative** |
|  |  |

4. a) 14 cm  
 b) 4 cm

5. For example: I determined the value of the powers of 3 with exponents 1 to 8:

There is a repeating pattern in the ones digits (3, 9, 7, 1). Every 4th number ends in 1.   
1992 is divisible by 4, so I know the ones digit of the value of will be 1.