## Unit 2 Lesson 13: Polynomial Division (Part 2)

### 1 Notice and Wonder: Different Divisions (Warm up)

#### Student Task Statement

What do you notice? What do you wonder?







### 2 Polynomial Long Division

#### Student Task Statement

1. Diego used the long division shown here to figure out that . Show what it would look like if he had used a diagram.

|  | *
 | *
 |
| --- | --- | --- |
|  |  |  |
| * 1
 |  |  |

* Pause here for a whole-class discussion.
1. is a factor of , which means there is some other factor where . Finish the division started here to find the value of .
2. Jada used the diagram shown here to figure out that . Show what it would look like if she had used long division.

|  |  |  | * 5
 |
| --- | --- | --- | --- |
|  |  |  |  |
| * 1
 |  |  | * 5
 |

### 3 More Long Division

#### Student Task Statement

Here are some polynomial functions with known factors. Rewrite each polynomial as a product of linear factors using long division.

1. ,
2. ,

### 4 Missing Numbers (Optional)

#### Student Task Statement

Here are pairs of equivalent expressions, one in standard form and the other in factored form. Find the missing numbers.

1. and
2. and
3. and
4. and
5. and
6. and
7. and



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