

## Lesson 10: Interpret Relationships

- Let's find relationships between patterns.

### Warm-up: True or False: Multiply and Divide

Decide if each statement is true or false. Be prepared to explain your reasoning.

- $276 \div 3 = \frac{1}{3} \times 276$
  
  
  
  
  
  
  
  
  
  
- $276 \div 3 = \frac{276}{6}$
  
  
  
  
  
  
  
  
  
  
- $(276 \div 3) \times 2 = \frac{2}{3} \times 276$

## 10.1: Mix and Match: 3 Patterns

1. Complete the patterns for each set of rules.
2. What are some relationships between the patterns for each set of rules? Be prepared to explain your thinking.

Set A

Rule 1: Start at 0. Keep adding 3.

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Rule 2: Start at 0. Keep adding 6.

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Set B

Rule 1: Start at 4. Keep adding 3.

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Rule 2: Start at 9. Keep adding 6.

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Set C

Rule 1: Start at 0. Keep adding 5.

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Rule 2: Start at 0. Keep adding 3.

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## 10.2: Generate Patterns

Partner A

1. Generate patterns for the two rules.

Rule 1: Start with 0. Keep adding 4.

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Rule 2: Start with 0. Keep adding 6.

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2. Compare your patterns. What relationships do you notice?

3. What number will be in pattern 2 when the number in the pattern 1 box is 40?

4. What number will be in pattern 1 when the number in the pattern 2 box is 120?

Partner B

1. Generate patterns for the two rules.

Rule 1: Start with 0. Keep adding 2.

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Rule 2: Start with 0. Keep adding 3.

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2. Compare your patterns. What relationships do you notice?

3. What number will be in pattern 2 when the number in the pattern 1 box is 30?

4. What number will be in pattern 1 when the number in the pattern 2 box is 60?