

Lesson 9: Generate Patterns

• Let's explore rules and patterns.



9.1: What's the Pattern?

1. Jada and Priya create patterns using rules. Use each rule to complete their patterns.

Jada's rule: start with 0 and keep adding 4.



Priya's rule: start with 0 and keep adding 8.



2. If Jada and Priya continue their patterns, what number will be in Priya's pattern when Jada's pattern has:

a. 40

b. 60

- 3. If Jada and Priya continue their patterns, what number will be in Jada's pattern when Priya's pattern has 192?
- 4. What relationships do you notice between the numbers in Priya's pattern and the numbers in Jada's pattern?



9.2: More Patterns

Partner A

1. Use each rule to create a pattern.										
Jada's rule: Start at 0. Keep adding 2.										
Priya's rule: Start at 0. Keep adding 6.										

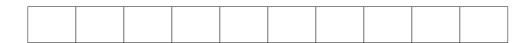
- 2. If the patterns continue:
 - a. What number will be in Priya's pattern when Jada's pattern has 34? Explain or show your reasoning.
 - b. What number will be in Jada's pattern when Priya's pattern has 120? Explain or show your reasoning.
- 3. What relationships do you notice between the numbers in Priya's pattern and the numbers in Jada's pattern?



Partner B

4. Use each rule to create a pattern.

Jada's rule: Start at 0. Keep adding 3.



Priya's rule: Start at 0. Keep adding 9.



- 5. If the patterns continue,
 - a. What number will be in Priya's pattern when Jada's pattern has 54? Explain or show your reasoning.
 - b. What number will be in Jada's pattern when Priya's pattern has 198? Explain or show your reasoning.
- 6. What relationships do you notice between the numbers in Priya's pattern and the numbers in Jada's pattern?