



## Patterning - Rule from Equation for Increasing Arithmetic Pattern

**1** Find the rule that describes this pattern equation

$$a_n = 2 + 3(n - 1)$$

- |  |                                      |
|--|--------------------------------------|
| A Start at 2 and multiply by 3 for each term | B Start at 6 and add 3 for each term |
| C Start at -2 and add 3 for each term        | D Start at 1 and add 3 for each term |
| E Start at 2 and add -1 for each term        | F Start at 2 and add 3 for each term |

**2** Find the rule that describes this pattern equation

$$a_n = 2 + 5(n - 1)$$

- |                                      |  |
|--------------------------------------|--|
| A Start at 6 and add 5 for each term | B Start at 2 and subtract 5 for each term    |
| C Start at 2 and add 5 for each term | D Start at 2 and multiply by 5 for each term |
| E Start at 2 and add 4 for each term | F Start at 2 and add 7 for each term         |

**3** Find the rule that describes this pattern equation

$$a_n = 3 + 6(n - 1)$$

- |   |   |
|---|---|
| A Start at 3 and subtract 6 for each term | B Start at 3 and add 2 for each term                        |
| C Start at -1 and add 6 for each term     | D Start with 3 and 9. Add the prior two terms for each term |
| E Start at 3 and add 6 for each term      | F Start at 3 and multiply by 6 for each term                |

**4** Find the rule that describes this pattern equation

$$a_n = 1 + 2(n - 1)$$

- |  |                                      |
|--|--------------------------------------|
| A Start at 1 and subtract 2 for each term    | B Start at 1 and add 0 for each term |
| C Start at 1 and add 2 for each term         | D Start at 1 and add 5 for each term |
| E Start at 1 and multiply by 2 for each term | F Start at 1 and add 4 for each term |

**5** Find the rule that describes this pattern equation

$$a_n = 1 + 5(n - 1)$$

- |  |   |
|--|---|
| A Start at 1 and add 5 for each term         | B Start at 4 and add 5 for each term                        |
| C Start at 1 and multiply by 5 for each term | D Start at -1 and add 5 for each term                       |
| E Start at 1 and add 9 for each term         | F Start with 1 and 6. Add the prior two terms for each term |

**6** Find the rule that describes this pattern equation

$$a_n = 2 + 6(n - 1)$$

- |   |   |
|---|---|
| A Start at 2 and subtract 6 for each term | B Start at 5 and add 6 for each term                        |
| C Start at 2 and add 6 for each term      | D Start at 2 and add 2 for each term                        |
| E Start at 1 and add 6 for each term      | F Start with 2 and 8. Add the prior two terms for each term |

**7** Find the rule that describes this pattern equation

$$a_n = 2 + 2(n - 1)$$

- |   |   |
|---|---|
| A Start at 4 and add 2 for each term                        | B Start at 2 and subtract 2 for each term |
| C Start with 2 and 4. Add the prior two terms for each term | D Start at 0 and add 2 for each term      |
| E Start at 2 and multiply by 2 for each term                | F Start at 2 and add 2 for each term      |

**8** Find the rule that describes this pattern equation

$$a_n = 1 + 6(n - 1)$$

- |                                       |  |
|---------------------------------------|--|
| A Start at 1 and add 10 for each term | B Start at 1 and add 4 for each term         |
| C Start at 1 and add 2 for each term  | D Start at 1 and multiply by 6 for each term |
| E Start at 1 and add 6 for each term  | F Start at -1 and add 6 for each term        |