



## Patterning - Rule from Equation for Decreasing Arithmetic Pattern

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

$$a_n = 17 - 4(n - 1)$$

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|--|--|
| A Start at 18 and subtract 4 for each term | B Start at 17 and add 4 for each term                    |
| C Start at 16 and subtract 4 for each term | D Start at 17 and subtract 4 for each term               |
| E Start at 17 and subtract 4 for each term | F Start with 17 and 21. Add the prior two terms for each |

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

$$a_n = 26 - 6(n - 1)$$

- |   |  |
|---|--|
| A Start at 29 and subtract 6 for each term    | B Start at 26 and add 6 for each term      |
| C Start at 26 and multiply by 6 for each term | D Start at 26 and subtract 2 for each term |
| E Start at 26 and subtract 7 for each term    | F Start at 26 and subtract 6 for each term |

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

$$a_n = 17 - 3(n - 1)$$

- |  |  |
|--|--|
| A Start at 17 and subtract 2 for each term               | B Start at 17 and subtract 5 for each term |
| C Start at 15 and subtract 2 for each term               | D Start at 17 and add 3 for each term      |
| E Start with 17 and 20. Add the prior two terms for each | F Start at 19 and subtract 2 for each term |

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

$$a_n = 13 - 3(n - 1)$$

- |  |  |
|--|--|
| A Start at 13 and subtract 2 for each term | B Start at 13 and subtract 0 for each term |
| C Start at 16 and subtract 2 for each term | D Start at 13 and subtract 2 for each term |
| E Start at 13 and add 3 for each term      | F Start at 13 and subtract 1 for each term |

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

$$a_n = 23 - 4(n - 1)$$

- |  |  |
|--|--|
| A Start at 23 and subtract 4 for each term | B Start at 19 and subtract 4 for each term |
| C Start at 23 and subtract 5 for each term | D Start at 23 and add 4 for each term      |
| E Start at 23 and subtract 1 for each term | F Start at 26 and subtract 4 for each term |

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

$$a_n = 28 - 5(n - 1)$$

- |  |  |
|--|--|
| A Start at 24 and subtract 5 for each term | B Start at 28 and subtract 4 for each term               |
| C Start at 28 and add 5 for each term      | D Start with 28 and 33. Add the prior two terms for each |
| E Start at 28 and subtract 6 for each term | F Start at 28 and subtract 5 for each term               |

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

$$a_n = 23 - 5(n - 1)$$

- |  |   |
|--|---|
| A Start with 23 and 28. Add the prior two terms for each | B Start at 23 and subtract 2 for each term    |
| C Start at 23 and subtract 5 for each term               | D Start at 23 and multiply by 5 for each term |
| E Start at 20 and subtract 5 for each term               | F Start at 23 and add 5 for each term         |

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

$$a_n = 11 - 2(n - 1)$$

- |  |  |
|--|--|
| A Start at 11 and add 2 for each term      | B Start at 11 and subtract 5 for each term               |
| C Start at 7 and subtract 2 for each term  | D Start with 11 and 13. Add the prior two terms for each |
| E Start at 11 and subtract 2 for each term | F Start at 11 and subtract 0 for each term               |