



Math worksheet on 'Patterning - Rule from Equation for Decreasing Arithmetic Pattern (Level 1)'. Part of a broader unit on 'Patterns and Sums - Practice'

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

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

- |   |   |
|---|---|
| <b>a</b> Start at 28 and subtract 5 for each term | <b>b</b> Start at 28 and add 5 for each term      |
| <b>c</b> Start at 28 and subtract 4 for each term | <b>d</b> Start at 28 and subtract 6 for each term |
| <b>e</b> Start at 28 and subtract 2 for each term | <b>f</b> Start at 24 and subtract 5 for each term |

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

$$a_n = 27 - 6(n - 1)$$

- |   |   |
|---|---|
| <b>a</b> Start with 27 and 33. Add the prior two terms for each | <b>b</b> Start at 27 and add 6 for each term      |
| <b>c</b> Start at 27 and subtract 10 for each term              | <b>d</b> Start at 25 and subtract 6 for each term |
| <b>e</b> Start at 28 and subtract 6 for each term               | <b>f</b> Start at 27 and subtract 6 for each term |

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

$$a_n = 26 - 5(n - 1)$$

- |  |   |
|--|---|
| <b>a</b> Start at 23 and subtract 5 for each term    | <b>b</b> Start at 26 and subtract 5 for each term               |
| <b>c</b> Start at 26 and multiply by 5 for each term | <b>d</b> Start with 26 and 31. Add the prior two terms for each |
| <b>e</b> Start at 26 and subtract 2 for each term    | <b>f</b> Start at 24 and subtract 5 for each term               |

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

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

- |   |   |
|---|---|
| <b>a</b> Start with 27 and 33. Add the prior two terms for each | <b>b</b> Start at 27 and add 6 for each term      |
| <b>c</b> Start at 27 and subtract 10 for each term              | <b>d</b> Start at 25 and subtract 6 for each term |
| <b>e</b> Start at 28 and subtract 6 for each term               | <b>f</b> Start at 27 and subtract 6 for each term |

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

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

- |  |   |
|--|---|
| <b>a</b> Start at 26 and add 6 for each term         | <b>b</b> Start at 26 and subtract 6 for each term |
| <b>c</b> Start at 26 and subtract 2 for each term    | <b>d</b> Start at 29 and subtract 6 for each term |
| <b>e</b> Start at 26 and multiply by 6 for each term | <b>f</b> Start at 26 and subtract 7 for each term |

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

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

- |   |   |
|---|---|
| <b>a</b> Start at 18 and subtract 4 for each term               | <b>b</b> Start at 17 and subtract 4 for each term |
| <b>c</b> Start with 17 and 21. Add the prior two terms for each | <b>d</b> Start at 16 and subtract 4 for each term |
| <b>e</b> Start at 17 and subtract 0 for each term               | <b>f</b> Start at 17 and add 4 for each term      |

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

$$a_n = 31 - 6(n - 1)$$

- |  |   |
|--|---|
| <b>a</b> Start at 31 and subtract 10 for each term   | <b>b</b> Start at 30 and subtract 6 for each term |
| <b>c</b> Start at 27 and subtract 6 for each term    | <b>d</b> Start at 31 and subtract 6 for each term |
| <b>e</b> Start at 31 and multiply by 6 for each term | <b>f</b> Start at 34 and subtract 6 for each term |

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

$$a_n = 21 - 4(n - 1)$$

- |   |  |
|---|--|
| <b>a</b> Start at 21 and subtract 4 for each term | <b>b</b> Start at 21 and subtract 6 for each term    |
| <b>c</b> Start at 22 and subtract 4 for each term | <b>d</b> Start at 21 and multiply by 4 for each term |
| <b>e</b> Start at 21 and add 4 for each term      | <b>f</b> Start at 25 and subtract 4 for each term    |