**Fill in the missing numbers.**

|  |  |  |  |
| --- | --- | --- | --- |
| **1.** | **The rule for the pattern shown is**  | **2.** | **The rule for the pattern shown is**  |
|  |  |  |  |
| **3.** | **The rule for the pattern shown is**  | **4.** | **The rule for the pattern shown is**  |
|  |  |  |  |

**Find the next two numbers in each pattern.**

|  |  |  |  |
| --- | --- | --- | --- |
| **5.** | **The rule for the pattern shown is**  | **6.** | **The rule for the pattern shown is**  |
|  |  |  |  |
| **7.** | **The rule for the pattern shown is**  | **8.** | **The rule for the pattern shown is**  |
|  |  |  |  |

**Find the rule for the following pattern.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **9.** |  |

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 |
| **10.** |  |

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 |
| **11.** |  |

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 |

**Find the common difference and the next number.**

|  |  |  |  |
| --- | --- | --- | --- |
| **12.** |  | **13.** |  |
|  |  |  |  |
| **14.** |  | **15.** |  |
|  |  |  |  |

**Find the common ratio and the next number.**

|  |  |  |  |
| --- | --- | --- | --- |
| **16.** |  | **17.** |  |
|  |  |  |  |
| **18.** |  | **19.** |  |
|  |  |  |  |

**ANSWERS**

**Fill in the missing numbers.**

|  |  |  |  |
| --- | --- | --- | --- |
| **1.** | **The rule for the pattern shown is**  | **2.** | **The rule for the pattern shown is**  |
|  |  |  |  |
| **3.** | **The rule for the pattern shown is**  | **4.** | **The rule for the pattern shown is**  |
|  |  |  |  |

**Find the next two numbers in each pattern.**

|  |  |  |  |
| --- | --- | --- | --- |
| **5.** | **The rule for the pattern shown is**  | **6.** | **The rule for the pattern shown is**  |
|  |  |  |  |
| **7.** | **The rule for the pattern shown is**  | **8.** | **The rule for the pattern shown is**  |
|  |  |  |  |

**Find the rule for the following pattern.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **9.** |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

 **+**The difference between successive values is always 1. The rule is of the form  |
| **10.** |  |

|  |  |  |  |  |  |  |  |
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The difference between successive values is always 2. The rule is of the form  |
| **11.** |  |

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The difference between successive values is always 3, The rule is of the form  |

**Find the common difference and the next number.**

|  |  |  |  |
| --- | --- | --- | --- |
| **12.** |  | **13.** |  |
|  | The pattern starts with and continued by adding to the last number each time.The common difference isThe next number is  |  | The pattern starts with and continued by adding to the last number each time.The common difference isThe next number is  |
| **14.** |  | **15.** |  |
|  | The pattern starts with and continued by adding to the last number each time.The common difference isThe next number is  |  | The pattern starts with and continued by adding to the last number each time.The common difference isThe next number is  |

**Find the common ratio and the next number.**

|  |  |  |  |
| --- | --- | --- | --- |
| **16.** |  | **17.** |  |
|  | The pattern starts with and continued by multiplying byto the last number each time. The common ratio isThe next number is  |  | The pattern starts with and continued by multiplying byto the last number each time. The common ratio is The next number is  |
| **18.** |  | **19.** |  |
|  | The pattern starts with and continued by multiplying byto the last number each time. The common ratio isThe next number is  |  | The pattern starts with and continued by multiplying byto the last number each time. The common ratio isThe next number is  |