|  |  |
| --- | --- |
| **Fill in the Blanks** | **Nth Term of a Quadratic Sequence** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sequence** | $$2$$ | $$7$$ | $$14$$ | $$23$$ |  | **Sequence** | $$7$$ | $$14$$ | $$25$$ | $$40$$ |
| **First Difference** |  | $$5$$ | $$7$$ | $$9$$ |  |  | **First Difference** |  |  |  |  |  |
| **Second Difference** |  | $$2$$ | $$2$$ |  |  | **Second Difference** |  |  |  |  |
| $$ 1 n^{2}$$ | $$1$$ | $$4$$ | $$9$$ | $$16$$ |  | $$ n^{2}$$ |  |  |  |  |
| **Sequence minus** $n^{2}$ | $$1$$ | $$3$$ | $$5$$ | $$7$$ |  | **Sequence minus** $n^{2}$ |  |  |  |  |
| **Linear nth term** | $$2n-1$$ |  | **Linear nth term** |  |
| **Quadratic nth term** | $$n^{2}+2n-1$$ |  | **Quadratic nth term** |  |
|  |  |  |  |  |
| **Sequence** | $$-1$$ | $$10$$ | $$27$$ | $$50$$ |  | **Sequence** | $$6$$ | $$8$$ | $$12$$ | $$18$$ |
| **First Difference** |  |  |  |  |  |  | **First Difference** |  |  |  |  |  |
| **Second Difference** |  |  |  |  |  | **Second Difference** |  |  |  |  |
| $$ n^{2}$$ |  |  |  |  |  | $$ n^{2}$$ |  |  |  |  |
| **Sequence minus** $n^{2}$ |  |  |  |  |  | **Sequence minus** $n^{2}$ |  |  |  |  |
| **Linear nth term** |  |  | **Linear nth term** |  |
| **Quadratic nth term** |  |  | **Quadratic nth term** |  |
|  |  |  |  |  |
| **Sequence** | $$2.5$$ | $$8$$ | $$14.5$$ | $$22$$ |  | **Sequence** | $$3$$ | $$3$$ | $$1$$ | $$-3$$ |
| **First Difference** |  |  |  |  |  |  | **First Difference** |  |  |  |  |  |
| **Second Difference** |  |  |  |  |  | **Second Difference** |  |  |  |  |
| $$0.5 n^{2}$$ | $$0.5$$ | $$2$$ | $$4.5$$ | $$8$$ |  | $$ n^{2}$$ |  |  |  |  |
| **Sequence minus** $n^{2}$ |  |  |  |  |  | **Sequence minus** $n^{2}$ |  |  |  |  |
| **Linear nth term** |  |  | **Linear nth term** |  |
| **Quadratic nth term** |  |  | **Quadratic nth term** |  |