

True or False?

**Set Notation**

For each statement, circle the correct response. Where a statement is false, correct it to make it true.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **1** | $$A=\left\{3, 4, 5, 6, 7, 8\right\} $$ | $$5\notin A$$ | True | False |
|  |  |  |  |
| **2** | $$ξ=\{1 to 20 inclusive\}$$$$A=\left\{Multiples of 3\right\}$$ | $$15\in A$$ | True | False |
|  |  |  |  |
| **3** | $$B=\left\{2, 4, 6, 8, 10, 12\right\}$$ | $$n\left(B\right)=6$$ | True | False |
|  |  |  |  |
| **4** | $$ξ=\{1 to 20 inclusive\}$$$$B=\left\{Multiples of 3\right\}$$ | $$n\left(B\right)=3$$ | True | False |
|  |  |  |  |
| **5** | $$A=\left\{3, 4, 5, 6, 7, 8\right\}$$$$B=\left\{1, 2, 3, 4, 5\right\}$$ | $$A∩B=\{3, 4\}$$ | True | False |
|  |  |  |  |
| **6** | $$A=\left\{6, 7, 8, 9\right\}$$$$B=\left\{1, 2, 3, 4, 5\right\}$$ | $$A∩B=∅$$ | True | False |
|  |  |  |  |
| **7** | $$A=\left\{6, 7, 8, 9\right\}$$$$B=\left\{1, 2, 3, 4, 5\right\}$$ | $$n\left(A∪B\right)=0$$ | True | False |
|  |  |  |  |
| **8** | $$A=\left\{2, 4, 6, 8, 10\right\}$$$$B=\left\{1, 2, 3, 4, 5\right\}$$ | $$5\in A∩B$$ | True | False |
|  |  |  |  |
| **9** | $$A=\left\{5, 7, 9, 11\right\}$$$$B=\left\{3, 4, 5, 6, 7\right\}$$ | $$A∩B^{'}=\{9, 11\}$$ | True | False |
|  |  |  |  |
| **10** | $$A=\left\{4, 8, 12\right\}$$$$B=\left\{6, 8, 10, 12, 14\right\}$$ | $$n\left(B∩A^{'}\right)=2$$ | True | False |
|  |  |  |  |
| **11** | $$A=\left\{4, 5, 6\right\}$$$$B=\left\{3, 4, 5, 6, 7, 8, 9\right\}$$ | $$B⊂A$$ | True | False |
|  |  |  |  |
| **12** | $$ξ=\{1 to 12 inclusive\}$$$$A=\left\{Multiples of 3\right\}$$$$B=\left\{3, 4, 5, 6, 7, 8\right\}$$ | $$n\left(A^{'}∩B^{'}\right)=5$$ | True | False |