

True or False?
(test 3, 9/12/2013)

Naam: _____
Studentnr.: _____

- | True | | False |
|--------------------------|---|--------------------------|
| <input type="checkbox"/> | 1. If X and Y are homeomorphic then, for all $x \in X$ and all $y \in Y$, $X \setminus \{x\}$ and $Y \setminus \{y\}$ are homeomorphic. | <input type="checkbox"/> |
| <input type="checkbox"/> | 2. If X and Y are homeomorphic then, for all $x \in X$ there exists $y \in Y$ such that $X \setminus \{x\}$ and $Y \setminus \{y\}$ are homeomorphic. | <input type="checkbox"/> |
| <input type="checkbox"/> | 3. The collection of all open triangles in the plane is a topology basis. | <input type="checkbox"/> |
| <input type="checkbox"/> | 4. for any action of \mathbb{Z}_2 on S^n , S^n/\mathbb{Z}_2 is homeomorphic to \mathbb{P}^n . | <input type="checkbox"/> |
| <input type="checkbox"/> | 5. for any action of \mathbb{Z}_2 on S^n , S^n/\mathbb{Z}_2 is Hausdorff. | <input type="checkbox"/> |
| <input type="checkbox"/> | 6. For any (X, \mathcal{T}) , $A \subset B \subset X$, one has $(\mathcal{T} _B) _A = \mathcal{T} _A$. | <input type="checkbox"/> |
| <input type="checkbox"/> | 7. The product of any two Hausdorff spaces is Hausdorff. | <input type="checkbox"/> |
| <input type="checkbox"/> | 8. if $p_n : [0, 1] \rightarrow \mathbb{R}$ are polynomial functions converging uniformly to f , then f is a continuous. | <input type="checkbox"/> |
| <input type="checkbox"/> | 9. if $p_n : [0, 1] \rightarrow \mathbb{R}$ are polynomial functions converging pointwise to f , then f is continuous. | <input type="checkbox"/> |
| <input type="checkbox"/> | 10. if $p_n : [0, 1] \rightarrow \mathbb{R}$ are polynomial functions converging uniformly to f , then f is a polynomial. | <input type="checkbox"/> |

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