# Template for English Article

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# 1   Linear Algebra

> **Theorem 1.1** (Rank-Nullity)**.**
>
> The dimension [a] of $V$ is equal to ...
>
> ---
> [a]The dimension is ...

*Proof.* The rank[1]                                                                                     □

According to ...[1]

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[1]The rank is ...

## 2   codes

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**Algorithm 1** PARTITION$(A, p, r)$

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**Input: x, y** $\in \mathbb{R}^n$
**Output: z = xy**$^T \in \mathbb{R}^{n \times n}$

1:  $i = p$
2:  **for** $j = p$ to $r$ **do**
3:      **if** $A[j] <= 0$ **then**
4:          $swap(A[i], A[j])$
5:          $i = i + 1$
6:      **end if**
7:  **end for**

---

```
1       int main() {
2       printf("hello, world");
3       return 0;
4       }
```

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# Appendix A   Multilinear Algebra

# References

[1] Zhang,