

Appendix

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**Universe CANNOT be
Past infinite**

THESIS: The Universe had a Beginning

LOGIC.

F1. It is **impossible to cross an infinity**.

--- temporal, causal, contingent

.

D1. Therefore, the **universe CANNOT be past-infinite**.

--- if it were past infinite it would have to cross an infinity of past moments to get to the present moment.

--- that is impossible.

C1. Therefore, the Universe cannot be past infinite.

.

C2. Therefore, the Universe had a beginning in time.

THESIS: Any Dynamic Universe had a Beginning LOGIC.

F1. It is **impossible to cross an infinity**.

--- temporal, causal, contingent

.

D1. Therefore, **a dynamic-universe CANNOT be past-infinite**.

--- if it were past infinite it would have to cross an infinity of past moments to get to the present moment.

--- that is impossible.

C1. Therefore, a dynamic-Universe cannot be past infinite.

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C2. Therefore, the Universe had a beginning in time.

THESIS: Any Cyclic Universe had a Beginning

LOGIC.

F1. It is **impossible to cross an infinity**.

--- temporal, causal, contingent

D1. Therefore, **a cyclic-universe CANNOT be past-infinite**.

--- if it were past infinite it would have to cross an infinity of past moments (or past cycles) to get to the present moment (or present cycle).

--- that is impossible.

C1. Therefore, a cyclic-Universe cannot be past infinite.

C2. Therefore, any cyclic-Universe had a beginning in time.