Recall the Previously Shown Results from Ch. 1 and Section 3.2

Lemma SEE. If x is an even integer and y is an even integer, then $x + y$ is an even integer.
Lemma SEO. If x is an even integer and y is an odd integer, then $x + y$ is an odd integer.
Lemma SOO. If x is an odd integer and y is an odd integer, then $x + y$ is an even integer.
Lemma PEA. If x is an even integer and y is an integer, then $x \cdot y$ is an even integer.
Lemma POO. If x is an odd integer and y is an odd integer, then $x \cdot y$ is an odd integer.
Theorem 3.10. An integer n is even if and only if n^2 is even.
Corollary 3.10. An integer n is odd if and only if n^2 is odd.

After you finish this problem (i.e., ER 3.2.1), you may use it on **later** problems (i.e., problems after ER 3.2.1d). ER 3.2.1, as well as Theorem/Corollary 3.10, are used often in later problems.

►. **Theorem 1c**. An integer n is even if and only if n^3 is even.
Corollary 1d. An integer n is odd if and only if n^3 is odd.

1. Symbolically write Theorem 1c.
2. Prove Theorem 1c by using previous shown results (listed above).
3. Symbolically write Corollary 1d.
4. Prove Corollary by using Theorem 1c and equivalent logical equivalence.

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DELETE this whole sentence and THEN put your answer to ALL parts down here.