

COOKIE(X) = 1/2

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Recommended Citation

Lawrence M. Lesser, "COOKIE(X) = 1/2," *Journal of Humanistic Mathematics*, Volume 13 Issue 2 (July 2023), pages 513-514. DOI: 10.5642/jhummath.BXDB9256. Available at:
<https://scholarship.claremont.edu/jhm/vol13/iss2/34>

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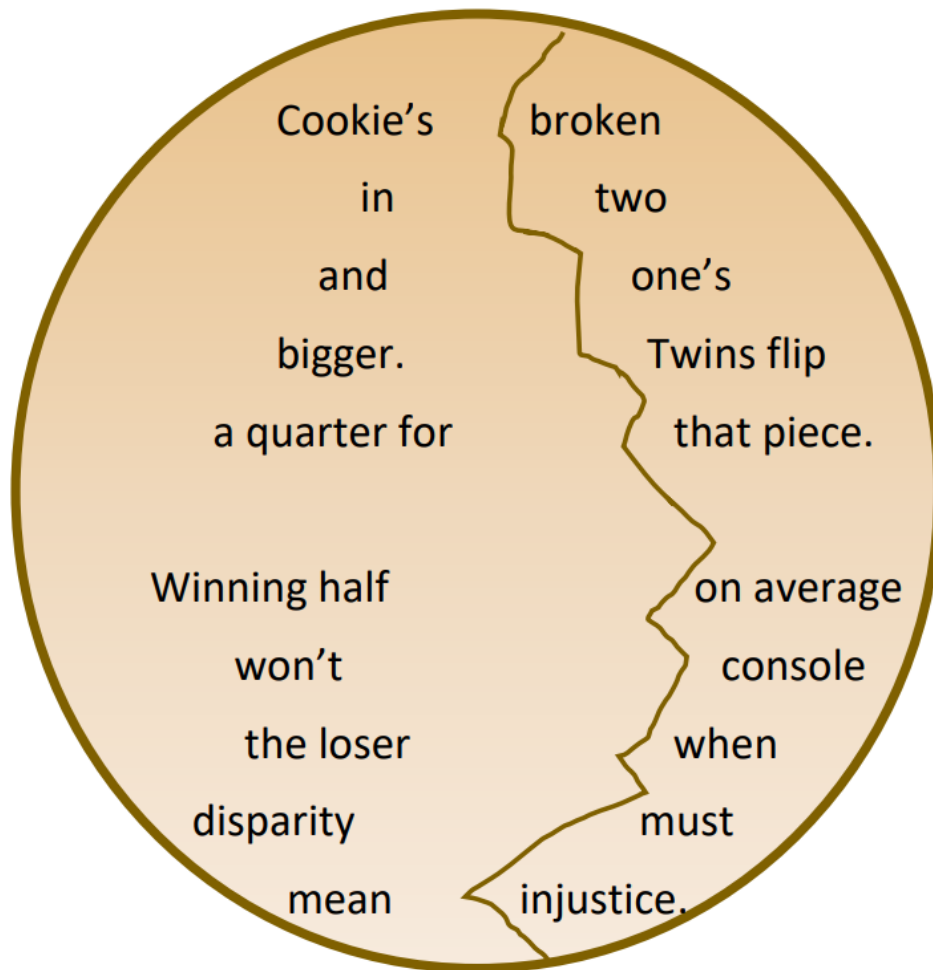
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$$\text{COOKIE}(X) = 1/2$$

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Artist Statement:

When given the choice between “you cut, I choose” and “you cut, and then a coin flip chooses,” Chambers [1] found that his students viewed the former as “more fair” and that they strongly preferred it, even though the latter yields an expected value of “your” portion X that is exactly half of the whole:

$$E(X) = \frac{1}{2}X + \frac{1}{2}(1 - X) = \frac{1}{2}.$$

This artwork was inspired by wondering if this preference is associated with automatically viewing disparity as discrimination, rather than as “just the way the cookie crumbles” this time.

References

- [1] Timothy Chambers, “A fair-division conundrum,” *Mathematics Teacher*, Volume **103** Issue 3 (2009), page 172.