Modular Arithmetic

lan Ludden

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- $-4 \equiv 24 \pmod{7}$

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$$[-7] = \{-7, -2, 3, 8, \ldots\} = [3]$$

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$$[4] \cdot [3] = [12] = [5]$$

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$$[51] \cdot [-4] = [2] \cdot [3] = [6]$$

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- $[51] \cdot [-4] = [2] \cdot [3] = [6]$
- $[6]^{173} = [-1]^{173} = [(-1)^{173}] = [-1] = [6]$

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