

Games, graphs, and machines

Modular arithmetic

July 31, 2024

A cautionary tale

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Is this an equivalence relation?

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What are the equivalence classes?

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Let \overline{R} be the equivalence classes. Define $+$ on equivalence classes by the rule

$$[a] + [b] = [a + b].$$

Is this well-defined?

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Let \overline{R} be the equivalence classes. Define \times on equivalence classes by the rule

$$[a] \times [b] = [a + b].$$

Is this well-defined?