Mathematics For Computing
Digraphs and Relations

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Digraphs and Relations

Given S be the set of integers $\{5, 6, 7, 8, 9, 10\}$.

(a) Let $\mathcal{R}$ be a relation defined on S by the following condition such that, for all $x, y \in S$, $x\mathcal{R}y$ if $(x + y)$ is a multiple of 3.

    i. Draw the digraph of $\mathcal{R}$.

    ii. Say with reason whether or not $\mathcal{R}$ is

- reflexive;
- symmetric;
- transitive.

In the cases where the given property does not hold provide a counter example to justify this.

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