



Bilkent University
Department of Mathematics

PROBLEM OF THE MONTH

Term: July-August 2021

Find all real numbers c for which there exists a non-constant function $f : \mathbb{R} \rightarrow \mathbb{R}$ satisfying

$$f(x - f(y)) = f(x - y) + c(f(x) - f(y))$$

for all real numbers x and y .