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Incorporating technology and cooperative learning to teach function transformations.

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Summary: When teaching transformations of functions, teachers typically have students vary the coefficients of equations and examine the resulting changes in the graph. This approach, however, may lead students to memorise rules related to transformations. Students need opportunities to think deeply about transformations beyond superficial observations about changes in the graphs. In this article, the authors describe an activity in which upper secondary school students used graphing calculators in cooperative learning groups to analyse and create motifs found in traditional Turkish rugs. The activity centres on transformations of functions. It encourages students to make connections between original and transformed graphs and to think deeply about the effect on the graph of changing a parameter. (ERIC)

Classification: I20 U70

Keywords: use of technology; cooperative learning; functions; transformations of functions