

## Part III

# Cautions and Recommendations

[Chapter 8](#) opens a new topic of computer-generated visualizations. Although some research dealing with visualizations developed, displayed, and used in computers has been described under the content areas of mathematics, reading, and science, computer-generated visualizations are sufficiently pervasive as to justify a separate chapter devoted to them. More to the point, there are many unwarranted assumptions made about the beneficial effects of computer-generated visualizations that we would be remiss if we did not deal with them. Thus, we turn to the research and provide a balanced account, prompting cautions on what is reasonable and not reasonable to expect and recommendations for the use of computer-generated visualizations in instruction.

[Chapter 9](#) is both retrospective and prospective. We reflect on the preceding chapters and draw several recommendations for the use of visualizations in mathematics, reading, and science education. Then we look to the future and point to several areas of needed research.