Big Ideas Math®
Game Closet

9 is Fine!

● Materials:
- Paper
- Pencil

● Directions:
Use exactly nine 9's and the operations +, −, X, and ÷ to write expressions that have values of 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10.

For example, $(9999 - 9999)\,9 = 0$.

● Who Wins?
The student that has the most expressions wins.

● Possible Answers:

$(9999 - 9999)\,9$	$= 0$
$(99 - 9) \div 9 - (9 \times 9 \div 9)(9 \div 9)$	$= 1$
$(99 - 9) \div 9 - (9 \times 9 \div 9) + (9 \div 9)$	$= 2$
$(9 + 9) \div 9 + (9 \div 9)(99 \div 99)$	$= 3$
$(9 + 9 + 9 + 9) \div 9 \times (99 \div 99)$	$= 4$
$9 - (9 \div 9) - (9 \div 9) - (9 \div 9) - (9 \div 9)$	$= 5$
$9 - (9 \div 9) - (9 \div 9) - (9 \div 9) \times (9 \div 9)$	$= 6$
$9 - (99 \div 99) - (99 \div 99)$	$= 7$
$9 - (9999 \div 9999)$	$= 8$
$9 \times (9999 \div 9999)$	$= 9$
$9 + (9999 \div 9999)$	$= 10$