

8. **REINFORCE** Dominic's math grade is determined by the points he earns on tests and quizzes. It is calculated as the percentage of points earned out of the total points possible. He scores 30 out of a possible 30 points on the first quiz, so at this point his grade is $\frac{30}{30} = 100\%$.

a. On the next quiz, Dominic earns 70% out of a total of 50 possible points. Calculate Dominic's grade in the course after the second quiz.

b. Dominic also earns 70% of possible points on both the next quiz and his first text. Quiz 3 is worth 20 points and text 1 is worth 100 points. Complete the table to calculate his course grades under this scenario.

	Total additional points after quiz 1	Process	Final grade (decimal form rounded to nearest hundredth)
Quiz 1	0	$\frac{30}{30}$	1.00
Quiz 2	50	$\frac{30 + 35}{30 + 50} = \frac{65}{80}$	0.81
Quiz 3	70		
Test 1			

c. Using the information from the table, write the function rule that describes the final grade $g(x)$ as a function of total additional points after quiz 1 (x).