

Name: _____

Period: _____

Advanced Math
Problem Solving #1 Quarter 4

Answer all 7 questions. 3 points will be awarded for each question. One point will be given for the correct answer, and 2 points for showing work. If no work is shown, you must write a brief explanation that discusses how you generated your response.

1. Determine $g(45)$ given the change table below.

x	g(x)	Δ	Δ^2
0	10	-18	6
1	-8	-12	6
2	-20	-6	6
3	-26	0	6

2. If $\sin\theta = \frac{5}{13}$, determine all possible values of $\tan\theta$.

3. Estimate the rate of change occurring at $f(4)$ for the graph with the given table.

x	2	3	5	8	13
f(x)	1	4	-2	3	6

