

Quiz #4

10-SE-65

## Numerical Methods.

Q1. Error detection.

$$n = 1, 2, 3, 4, 5, 6, 7, 8, 9$$
$$f(n) = 10, 12, 15, 21, 32, 50, 79, 115, 166$$

<u>n</u>	<u>f(n)</u>	1st.	2nd	3rd	4th
1	10	2			
2	12	3	1		
3	15	6	3		
4	21	11	5		0 -4e
5	32	18	7		2 6e
6	50	29	11	4	-8 -4e
7	79	36	7	8	12 -e
8	115	51	15		
9	166				

12 is of highest magnitude so.

$$\frac{12}{-1} = -12 \rightarrow \text{error}$$

$$\text{so error} = 32 - (-12) = 32 + 12 = 44$$