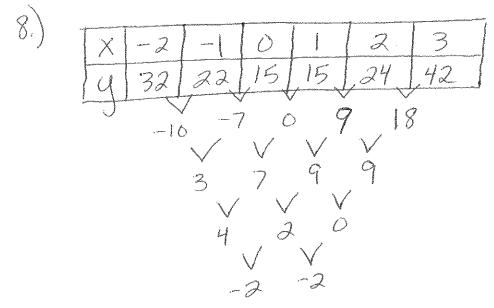
<b>M</b>	Å 1/	15We/	Ken	,	Date		Clas	_	
	<b>1977</b>	ractice	!		Date		Clas	<b>S</b>	
Curve Fitting with Polynomial Models									
Complete each statement.									
1. Linear functions have constant									
2. C	2. Cubic functions have constant								
3. Quadratic functions have constant <u>Second</u> differences.									
4. Quadratic functions are degree functions.									
	5. Linear functions are <u>First</u> degree functions.								
6. Cubic functions are Third degree functions.									
Use finite differences to determine the degree of the polynomial that best describes the data.									
pest ( 7.	aescri	pes the da	ta.						
7.	х	0	1	2	3	4	5	]	
	У	-5	1	12	29	53	85		
l	a Wh	ich differen	ces are co	netant?	<u> </u>		7	hicd	
	a. Which differences are constant?  b. Identify the degree of the polynomial of best fit.								
8.			,,	,,	• • • • • • • • • • • • • • • • • •			Accessed to the control of the contr	
	х	-2	-1	0	1	2	3		
	У	32	22	15	15	24	42		
'	a. Which differences are constant?								
	b. Identify the degree of the polynomial of best fit.								
9.		<del>]</del>		1	T		T	٦	
	X	5	7	9	11	13	15	_	
	У	26	40	45	44	40	36	]	
	a. Which differences are constant?								
b. Identify the degree of the polynomial of best fit.									
10. Use a graphing calculator to find a polynomial function for the data in Exercise 7.									
$f(x) \approx 0.167x^3 + 2x^2 + 3.833x - 5$									
11. Use a graphing calculator to find a polynomial function for the data in Exercise 9. $f(x) \approx 0.626x^3 - 2.438x^3 + 29.438x - 68.063$									
1(1) U.O.A.) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \									



9.