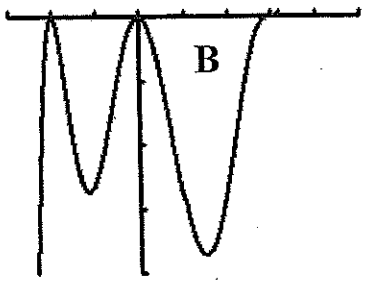
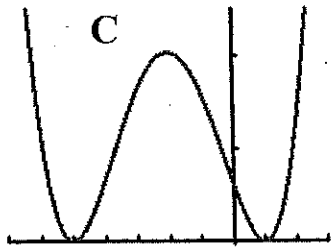
Graphing Polynomial Equations

Determine the degree of each polynomial equation given below. Then list the roots and their multiplicity. Lastly, match each polynomial equation to its correct graph shown below. The one is done for you.

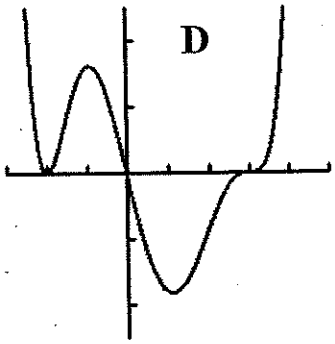
Equation	Graph	Degree	Roots/Multiplicity			
1. $y = x(x+2)^2(x-3)^3$	D	6	Root	0	-2	3
			Mult.	1	2	3
2. $y = x^2(x+2)^2(x-3)^3$	B	7	Root	0	-2	3
			Mult.	2	2	3
3. $y = (x+5)^2(x-1)$	J	3	Root	-5	1	
			Mult.	2	1	
4. $y = (x+5)^2(x-1)^2$	C	7	Root	-5	1	
			Mult.	2	2	
5. $y = -(x-1)^3(x+1)(x+2)$	H	5	Root	-2	-1	1
			Mult.	1	1	3
6. $y = (x-1)^3(x+1)(x-2)$	G	5	Root	-1	1	2
			Mult.	1	3	1
7. $y = -(x-4)^2(x+3)^2$	F	4	Root	-3	4	
			Mult.	2	2	
8. $y = (x-4)^2(x+3)^2$	I	4	Root	-3	4	
			Mult.	2	2	
9. $y = x^2(x-2)^3(x-3)$	E	6	Root	0	2	3
			Mult.	2	3	1
10. $y = -x^2(x-2)^3(x-3)^2$	A	7	Root	0	2	3
			Mult.	2	3	2





Graphing Polynomial Functions(continued)

D



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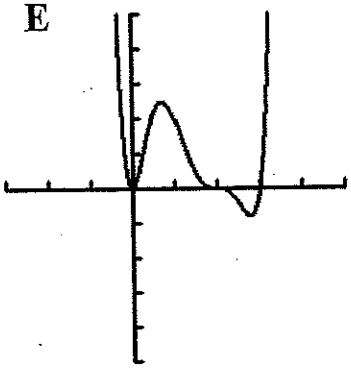

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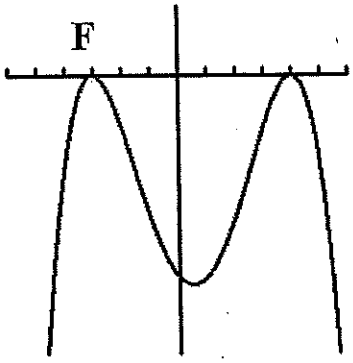

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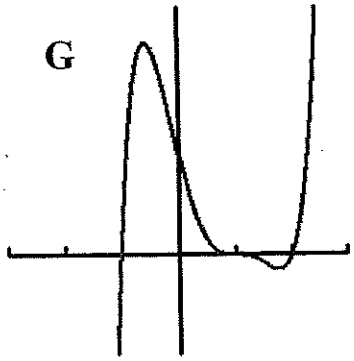
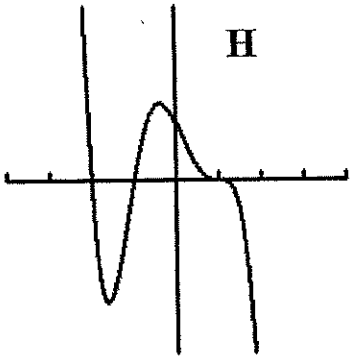
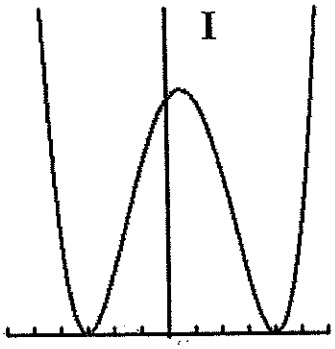


H



I



J