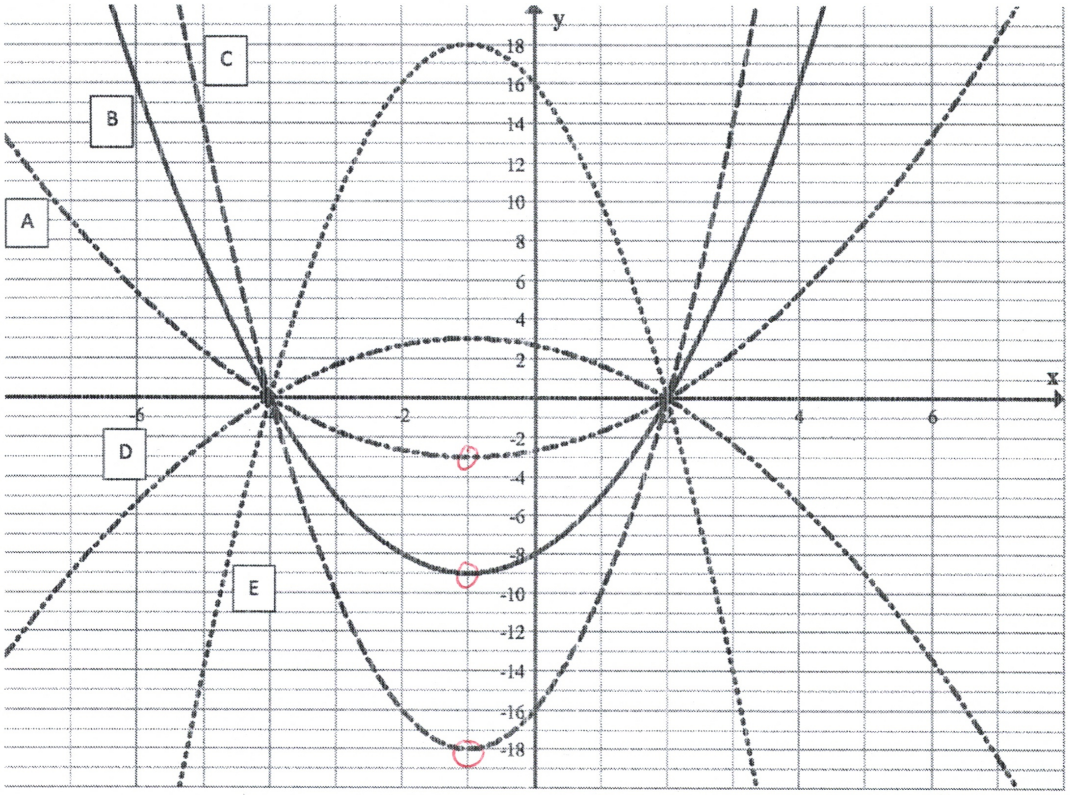
Name:_____ Block:_____

Fun Multiple Graphs

I. For each of the below graphs (A-through-E), fill in the below table.
You CAN use your calculator to verify your graphs and results.



Graph	Zeros	Vertex	Write as $a(x-h)^2+k$	Write as factored form $a(x-x_1)(x-x_2)$	y-intercept (Calculate)
A	$-4, +2$	$(-1,-3)$	$\frac{1}{3}(x+1)^2-3$	$\frac{1}{3}(x+4)(x-2)$	$x=0$ $-\frac{8}{3}=-2\frac{2}{3}$
B	$-4, +2$	$(-1,-9)$	$1(x+1)^2-9$	$1\cdot(x+4)(x-2)$	-8
C	$-4, +2$	$(-1,-18)$	$2(x+1)^2-18$	$2\cdot(x+4)(x-2)$	-16
D	$-4, +2$	$(-1,3)$	$-\frac{1}{3}(x+1)^2+3$	$-\frac{1}{3}(x+4)(x-2)$	$2\frac{2}{3}$
E	$-4, +2$	$(-1,18)$	$-2(x+1)^2+18$	$-2(x+4)(x-2)$	$+16$

$x=2 \Rightarrow a(2+1)^2-3=0$

$a\cdot 9-3=0$

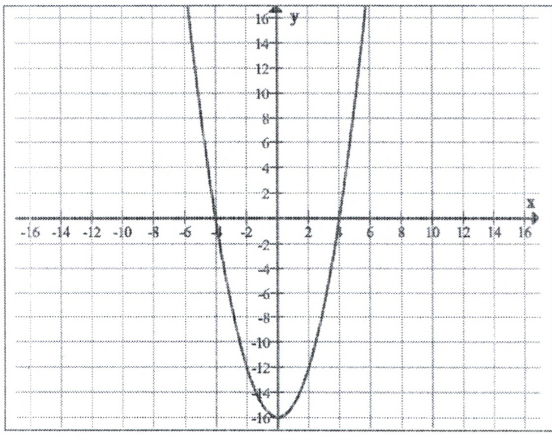
$a\cdot 9=3$

$\boxed{a=\frac{1}{3}}$

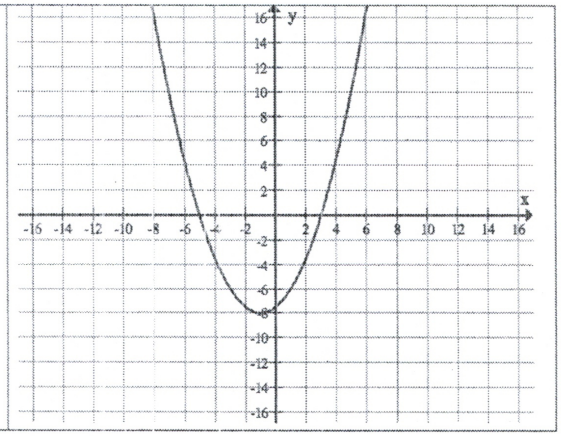
Name:_____ Block:_____

I. For each of the below graphs (A-through-D), fill in the below table.
You CAN use your calculator to verify your graphs and results.

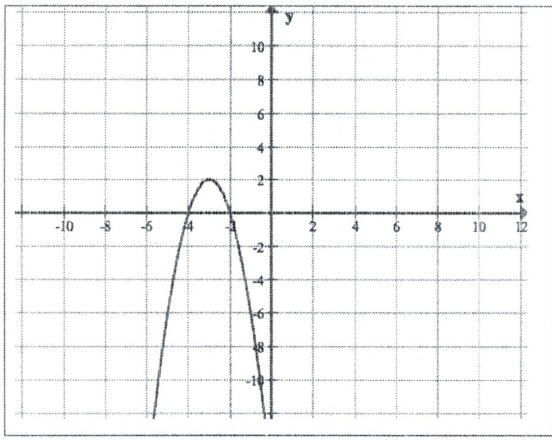
a.



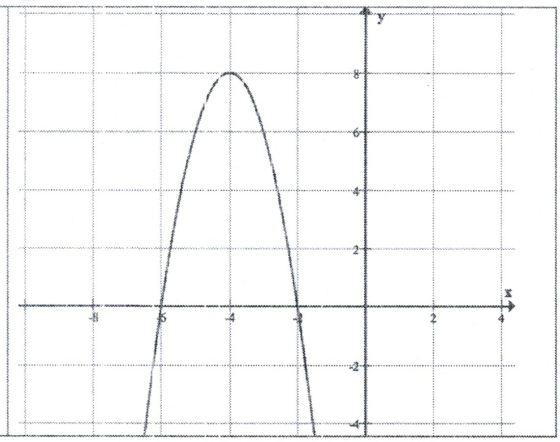
b.



c.



d.



Graph	Zeros	Vertex	Write as $a(x-h)^2+k$	Write as factored form $a(x-x_1)(x-x_2)$	y-intercept (Calculate)
A	$\{-4, 4\}$	$(0, -16)$	$1(x-0)^2-16$	$1\cdot(x+4)(x-4)$ $= x^2-16$	-16
B	$-5, 3$	$(-1, -8)$	$\frac{1}{2}(x+1)^2-8$	$\frac{1}{2}(x+5)(x-3)$	$\frac{1}{2}\cdot(-15)=$ -7.5
C	$-4, -2$	$(-3, 2)$	$-2(x+3)^2+2$	$-2(x+4)(x+2)$	-16
D	$-6, -2$	$(-4, 8)$	$-2(x+4)^2+8$	$-2(x+6)(x+2)$	-24

=== End ===