"In grades 5–8, the mathematics curriculum should include explorations of patterns and functions so that students can describe and represent relationships with tables, graphs, and rules; and analyze functional relationships to explain how a change in one quantity results in a change in another."

–NCTM, *Curriculum and Evaluation Standards for School Mathematics*

Silent Function Factory

- ✓ Great for t-table practice
- ✓ Develops problem-solving skills
- ✓ Ideal for Guess and Check strategies
- ✓ Horizontal or vertical format
- ✓ Excellent for number line development
- ✓ Encourages mental math
- ✓ QUIET thinking activity
- ✓ Students can generate problems
- ✓ Promotes higher-level mathematical thinking and discussion
- ✓ Good group activity

Silent Function Factory

Add numbers to the function. Place your numbers under the value of x.

x:	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
f(x):			-8					7			16	

x:	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
f(x):		-64						8				

x:	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
f(x):						-2			22			

x:	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
f(x):			3					8				

x:	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
f(x):		4			1							

x:	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
f(x):					-1		1					

$3x + 1$, x^3, $8x - 2$, $x(x + 2)$, $|x|$, $1/x$

Silent Function Factory

Add numbers to the function. Place your numbers under the value of x.

x:	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
f(x):												

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f(x):												

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f(x):												