Mathematics For Queensland
Year 11 Mathematics B
Chapter Two – Quadratic Functions

Absolute Value Dance

Here is a dramatic way (literally!) to reinforce the concept of transformations.   This idea came from an email, who author (sadly we have lost the name of the original poster)) suggested that this activity be done while the "Eye of the Tiger" is playing.   We have no idea what "Eye of the Tiger" is, but we are sure that consulting with your students beforehand will allow you to find a tape of this song, or a suitable substitute.

Doing this activity requires the teacher to forego a certain amount of dignity. So go for it!

"Eye of the Tiger" is a sort of "function aerobics" exercise in which students mimic the graph of a function whose formula is shown on an overhead all to the tune of "Eye of the Tiger".

Just show one function at a time and make sure to cover all of the types of transformations in your dance. Here is a typical list of dance moves:

1.	$|x|$	arms overhead at about 45 degree angles
2.	$2|x|$	arms overhead at a steeper angle
3.	$\frac{1}{2}|x|$	arms overhead at a shallow angle
4.	$|x|$	arms overhead at about 45 degree angles
5.	$|x+2|$	students slide to the left
6.	$|x-1|$	and to the right
7.	$|x-1|-2$	and squat down
8.	$|x-1|+1$	now jump!
8.	$|x|$	back to the original position
9.	$-|x|$	arms down
10.	$-2|x|$	arms down at steeper angle

etc.