

## CORRIGENDUM

### QUASI-ADJOINT THIRD ORDER DIFFERENCE EQUATIONS: OSCILLATORY and ASYMPTOTIC BEHAVIOR

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There are some errors in the above paper which appeared in Vol. 9, No. 4, (1986), pages 781-784. These errors are corrected as follows:

The inequality and continued equality displayed after (2.1) on page 782 should be labeled (2.2).

Replace the sentence following (2.5) on page 784 with

The left member of (2.5) becomes unbounded as  $i \rightarrow \infty$ . The right member of (2.5) is bounded as  $i \rightarrow \infty$ .

### ON THE BOUNDEDNESS AND OSCILLATION OF SOLUTIONS TO $(m(t)x')' + a(t)b(x) = 0$

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The author would like to correct a remark made on his above paper which appeared in Volume 10, No. 2, (1987), page 47-50.

It was stated there that under certain hypotheses, the solutions to  $(m(t)x')' + a(t)b(x) = f(t)$  were bounded provided  $f(t)$  was bounded and continuous. However, that is only true if it can be shown that  $x'$  ultimately does not change sign; otherwise, one cannot invoke the mean value theorem which was done in that instance. In general, it is not true that the solutions are bounded even if the homogeneous equation has only bounded solutions. For example, consider the equation  $x'' + x = \cos(t)$ . The general solution is given by  $x(t) = A \sin(t) + B \cos(t) + t \sin(t)/2$  which is unbounded while all solutions to the related homogeneous equation  $x'' + x = 0$  are bounded since its general solution is  $x(t) = A \sin(t) + B \cos(t)$ .