Journal of
Mathematical
Inequalities
Volume 11, Number 3 (2017), 653–665 doi:10.7153/jmi-2017-11-51

INEQUALITIES FROM GENERAL QUASI–LINEAR MEANS

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Abstract. The paper has a number of aims. The first is to demonstrate the use of the comparison theorem for quasi-linear means to see how mean inequalities, and other apparently unrelated inequalities, can be seen from the perspective of quasi-linear means. Second, we will be generalizing some means, such as the identric mean, by observing its representation as a quasi-linear mean. Finally, we will generalize the quasi-linear mean comparison theorem which provides an extension to the Jensen-Steffensen-Boas inequality for a strictly increasing concave function. This allows for new inequalities to be introduced.

Mathematics subject classification (2010): 26D15.
Keywords and phrases: Concave function; distribution function; Jensen-Steffensen inequality; Neyman-Pearson lemma.

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