1145-F1-2136 Risto Atanasov* (ratanasov@email.wcu.edu). Convex Functions and Their Applications to Inequalities. Preliminary report.

As convex functions are defined by a functional inequality, they lead to a number of important inequalities. We will focus on two: Jensen's and Karamata's inequalities. They can be used in proving other inequalities, particularly those appearing as problems in mathematical competitions, including International Mathematical Olympiads and William Lowell Putnam Mathematical Competition. (Received September 24, 2018)