Pomegranate is well known for its attributed health beneficial properties. The aim of this study was to determine the effects of ethanol and acetic acid fermentations on total antioxidant activities and phenolic substances of pomegranate juice. Juices of two types of pomegranates and their 1:1 mixture with pomegranate pomace (25%) were used to make pomegranate wine and vinegar. Total solids, pH, total soluble solids, total sugar, total phenolic substances, ORAC and TEAC assays, and phenolic substances analyses were carried out. Total phenolic content of Hicaznar and Beynar pomegranate juices were 2471.77 and 1765.11 mg/L GAE, respectively. ORAC values of pomegranate vinegar samples were between 15.93-28.58 µmol/mL. Concentration of ellagic acid was the highest in pomegranate juice in all samples.