Eruption data for permanent teeth, obtained from a previous cross-sectional study of 2847 African and Asian school children aged 4-14 years in Nairobi, Kenya, were used to calculate the median age and the 10th-90th percentile range of age, for a given number of teeth present. For a limited period (5-13 years) up to the time of eruption of second molars, the total number of permanent teeth erupted can be used to estimate the age of a child, with an error which increases with the number of teeth present. The range of this error is about 18-30% of the median age for African males, 21-29% for African females, 15-33% for Asian males and 18-33% for Asian females, with a 1 in 5 chance that the error may exceed these limits.