

Quetlet self-measurements

Please measure with string each of the following variables for your own body. (This is not for sharing.) Remember that the z-score of each measurement is $z = \frac{x - \bar{x}}{s}$, where $\bar{x}$ is the population's mean and s is the population's standard deviation for each variable. For example, for a 17-year-old male, a waist size of 39 inches would have a z-score of $\frac{39 - 33.2}{7.82} \approx 0.74$. Pick the gender that seems most appropriate—but know that the source data is binary-only.

FEMALE

Variable	Your measurement	Mean of U.S. females aged 17 years	Std. dev. of U.S. females aged 17 years	Your z-score
Height (inches)		64.0	2.37	
Waist (inches)		33.5	7.31	
Bicep circumference (inches)		11.6	2.19	
Upper arm length (inches)		14.0	1.09	
Upper leg length (inches)		15.35	1.23	
Weight (pounds)		148.5	48.46	

MALE

Variable	Your measurement	Mean of U.S. males aged 17 years	Std. dev. of U.S. males aged 17 years	Your z-score
Height (inches)		68.9	4.85	
Waist (inches)		33.2	7.82	
Bicep circumference (inches)		12.1	2.22	
Upper arm length (inches)		15.12	1.37	
Upper leg length (inches)		16.8	1.54	
Weight (pounds)		165.5	55.53	

1. What measurements of yours stand out with an especially positive or especially negative z-score?

Source of data: Centers for Disease Control. (August 2016.) *Anthropometric Reference Data for Children and Adults: United States, 2011-2014.*

https://www.cdc.gov/nchs/data/series/sr_03/sr03_039.pdf