What are Percentiles?

Percentiles are used in statistics to give you a number that describes the value that a given percent of the values are lower than.

Example: Let's say we have an array of the ages of all the people that live in a street.

ages = [5,31,43,48,50,41,7,11,15,39,80,82,32,2,8,6,25,36,27,61,31]

What is the 75. percentile? The answer is 43, meaning that 75% of the people are 43 or younger.

The NumPy module has a method for finding the specified percentile:

Example[Get your own Python Server](https://www.w3schools.com/python/python_server.asp)

Use the NumPy percentile() method to find the percentiles:

import numpy  
  
ages = [5,31,43,48,50,41,7,11,15,39,80,82,32,2,8,6,25,36,27,61,31]  
  
x = numpy.percentile(ages, 75)  
  
print(x)

[Try it Yourself »](https://www.w3schools.com/python/trypython.asp?filename=demo_ml_percentile1)

Example

What is the age that 90% of the people are younger than?

import numpy  
  
ages = [5,31,43,48,50,41,7,11,15,39,80,82,32,2,8,6,25,36,27,61,31]  
  
x = numpy.percentile(ages, 90)  
  
print(x)