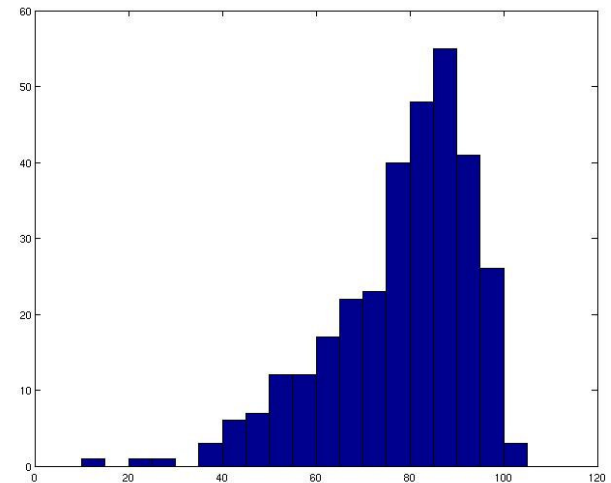


Matlab day 2

Exam scores Histogram via Matlab



Approximate grade ranges

Score	Grade	# of folks
88+	A range	91
75-87	B range	122
58-74	C or C+	70
50-57	C-	16
<50	D or E	19

Project C

- Airplane scheduling is extra credit (5%)
- 4pm today will post code to do selection

Today

- Applying what we know
 - Graphing histograms
 - Linear physics
 - Non-linear physics

Histogram

- HIST Histogram.
 - $N = \text{HIST}(Y)$ bins the elements of Y into 10 equally spaced containers and returns the number of elements in each container.
 - $N = \text{HIST}(Y,M)$, where M is a scalar, uses M bins.
 - $N = \text{HIST}(Y,X)$, where X is a vector, returns the distribution of Y among bins with centers specified by X .

Hist count

- HISTC Histogram count.
 - $N = \text{HISTC}(X,\text{EDGES})$, for vector X , counts the number of values in X that fall between the elements in the EDGES vector (which must contain monotonically non-decreasing values). N is a $\text{LENGTH}(\text{EDGES})$ vector containing these counts.

Matlab

- Two examples
 - Linear
 - Cannon ball, no air resistance
 - Non-Linear
 - Cannon ball, air resistance