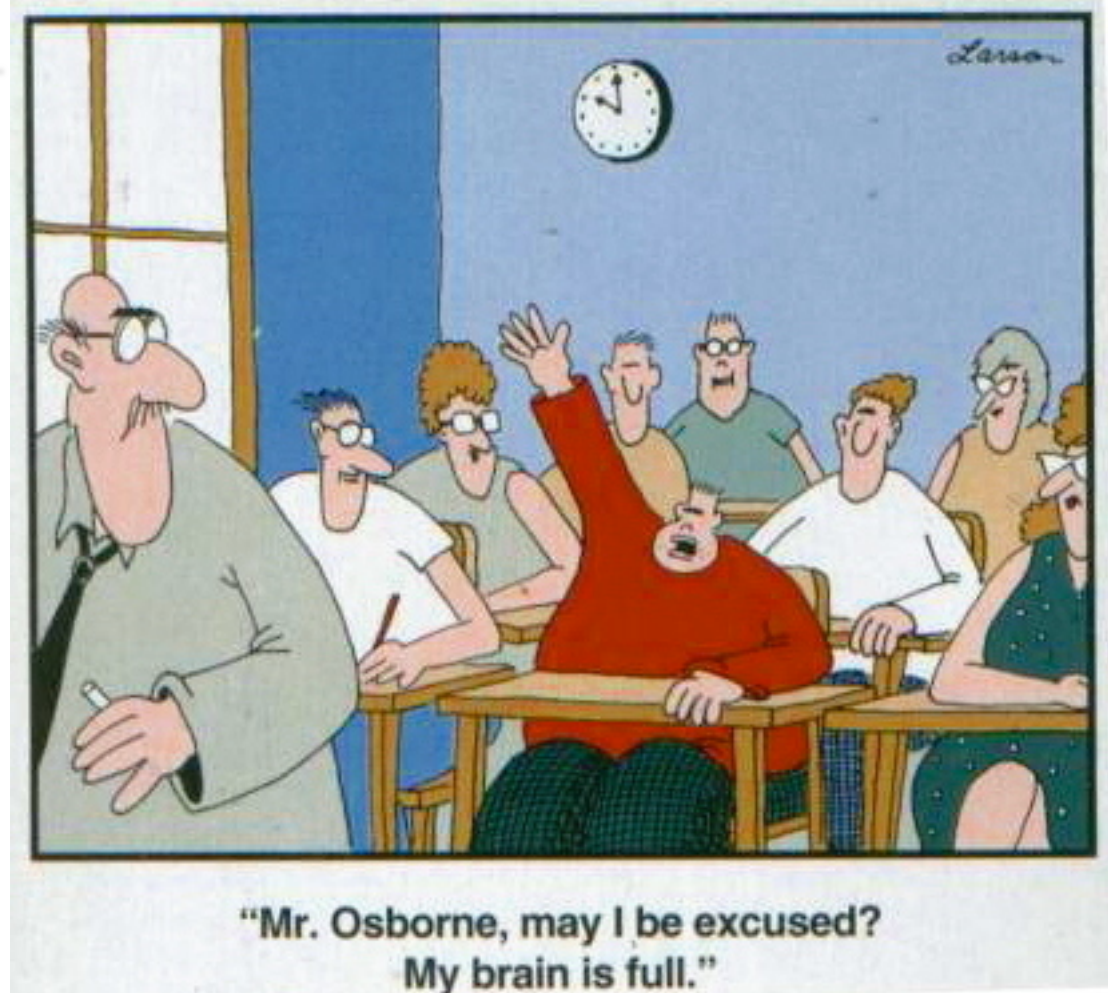


- **Theme Music:**
The Beatles
We Can Work It Out

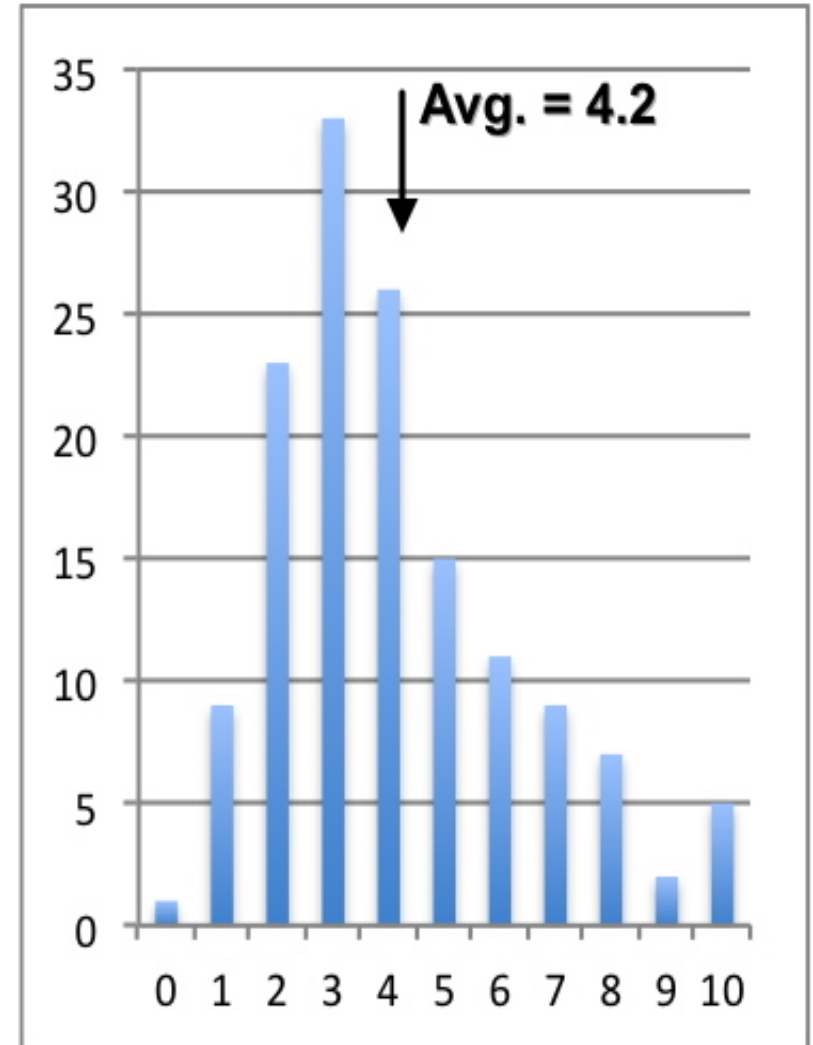
- **Cartoon:**
Gary Larson
The Far Side



Quiz 3

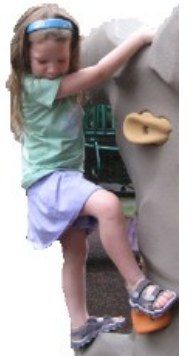
	1.1	1.2	1.3
2	40%	8%	6%
1	11%	32%	14%
0	48%	60%	79%

	2.1	2.2	2.3		2.4
a	42%	4%	1%	y	37%
b	0%	0%	6%	n	61%
c	4%	9%	15%		
d	1%	2%	9%		
e	0%	0%	4%		
f	16%	17%	47%		
g	28%	65%	13%		
h	3%	1%	1%		
n	6%	1%	4%		



Foothold Principles

Newton's Laws



- Newton 0:
 - An object responds to the forces it feels when it feels them.

- Newton 1:
 - An object that feels a net force of 0 keeps moving with the same velocity (which may = 0).

- Newton 2:
 - An object that is acted upon by other objects changes its velocity according to the rule

$$\vec{a}_A = \frac{\vec{F}_A^{net}}{m_A}$$

- Newton 3:
 - When two objects interact the forces they exert on each other are equal and opposite.

$$\vec{F}_{A \rightarrow B}^{type} = -\vec{F}_{B \rightarrow A}^{type}$$

Kinds of Forces

- Forces are what objects do to each other when they interact.
- Types of Force
 - Normal: N
 - Tension: T
 - Resistive: f, F^D, F^V
 - Weight: W
 - Electric: F^E
 - Magnetic: F^M
- Notation convention.

\vec{F} type of force
(object causing force) → (object feeling force)