

September 28, 2016 Physics 131 Prof. E. F. Redish

■ **Theme Music: Morcheeba**

Friction

■ **Cartoon: Bob Thaves**

Frank & Ernest



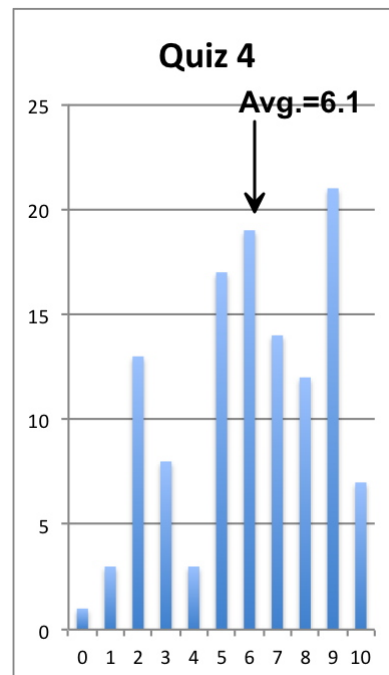
9/28/16

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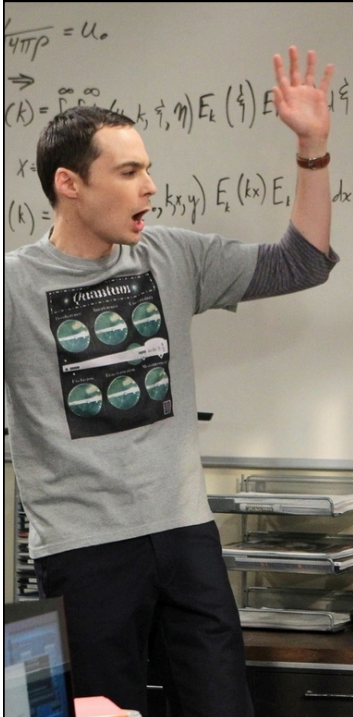
Quiz 4

	1		2	3	4
1=4>2=3	24%	a	1%	3%	3%
1=2=3=4	4%	b	56%	34%	7%
1>4>2=3	22%	c	41%	1%	23%
1>3>4>2	9%	d	2%	62%	61%
1>4>3>2	4%				
1>2=3>4	11%				
1=3>2=4	5%				



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The Equation of the Day

Resistive forces

$$F_{B \rightarrow A}^{fric} = f_{B \rightarrow A} \leq \mu_{AB} N_{B \rightarrow A}$$

$$F_{fluid \rightarrow A}^{viscous} = 6\pi\mu R_A v_A$$

$$F_{fluid \rightarrow A}^{inertial\ drag} = \frac{1}{2} C A_A \rho_{fluid} v_A^2$$

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Tension: The Spring

- A spring changes its length in response to pulls (or pushes) from opposite directions.

$$T = k \Delta L$$

