

November 2, 2012

Physics 131

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## ■ Theme Music: Queen

### *Under Pressure*

## ■ Cartoon: Bill Watterson

### *Calvin & Hobbes*



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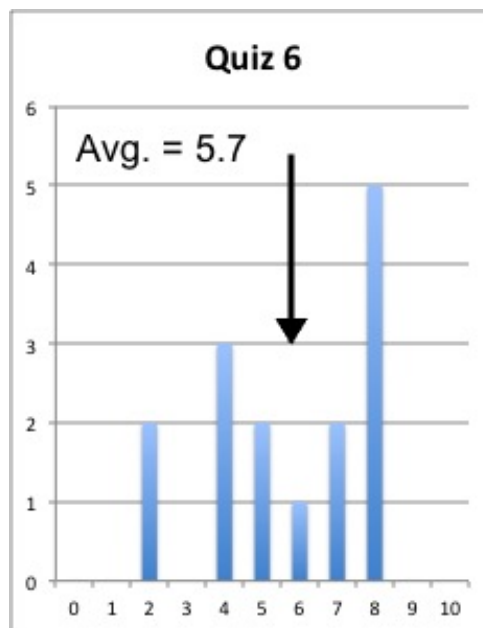
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## Quiz 6

	1.1	2	3
A	20%	7%	0%
B	7%	13%	93%
C	53%	80%	7%
D	0%	0%	0%
E	13%	0%	0%
F	7%	0%	0%

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## Foothold ideas: Buoyancy



- ***Archimedes' principle:*** When an object is immersed in a fluid (in gravity), the result of the fluid's pressure variation with depth is an upward force on the object equal to the weight of the water that would have been there if the object were not.
- As a result, an object whose density is less than that of the fluid will float, one whose density is greater than that of the fluid will sink.
- An object less dense than the fluid will float with a fraction of its volume under the fluid equal to the ratio of its density to the fluid's density.

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