1. Find the slope of the line between (7,-4) and (3, 8).  
2. Find the slope of the line between (7,-4) and (3, 8).  
[video help for #'s 1 and 2](http://www.youtube.com/watch?v=BbcuuWC_W4A)  
.  
3. What is the equation of the line (in slope-intercept form) with a slope of 3 and a y-intercept of -6?  
.  
4. Find the equation of the line (in slope-intercept form) that passes between the points (6, 9) and (-3, 6).  
5. Find the equation of the line (in slope-intercept form) that passes between the points (4, -9) and (2, -4).  
[video help for #'s 4and 5](http://www.youtube.com/watch?v=P1ex_a6iYDo)........[point-slope method](http://www.youtube.com/watch?v=GFM8NOe_XM4)  
.  
6. When Mr. B was 18 yearsold, he had 7,650 hairs on his head. By the time he turned 23, he had only 3,400. Write an equation describing how many hairs he had (y) as a function of his age (x).  
*hint: this is the same as #'s 4 and 5, use (age, hair) as a coordinate.*  
.  
7. Using your answer to #6, find out what age he was when he had 0 hairs.  
.  
8. What is the equation (in slope-intercept form) of the line that is parallel to y=-2x+8, that passes through (10, 12)?  
9. What is the equation (in slope-intercept form) of the line that is parallel to y=-2x+8, that passes through (20, -3)?  
[video help for #'s 8 and 9](http://www.youtube.com/watch?v=u3zvk-zkQW4)  
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10. What is the equation of the line (in slope-intercept form) that is perpendicular to y=3/4x+1, that passes through (6, 17)?  
11. What is the equation of the line (in slope-intercept form) that is perpendicular to y=2x-13, that passes through (4, 4)?  
[video help for #'s 10 and 11](http://www.youtube.com/watch?v=H98iBqt1fFQ)  
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12. What is the equation (in slope-intercept form) of the perpendicular bisector of the segment with endpoints (6, -3) and (10, -5)?  
13. What is the equation (in slope-intercept form) of the perpendicular bisector of the segment with endpoints (5, -1) and (13, 7)?  
[video help for #'s 12and 13](http://www.youtube.com/watch?v=Igt7GROa510)  
  
  
14. Find 10 people and write down their height and shoe size.

* All male or all female.
* Record height in inches.
* Don't use kids (children's shoe sizes will not work).
* You can use yourself for one of the ten, but not other students in this class.

...........shoe size..............height  
1.  
2.  
3.  
4.  
5.  
6.  
7.  
8.  
9.  
10.