

## Week in Review #6

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1.  $\frac{6 * 1 * 4 * 1 * 2 * 1}{6 * 5 * 4 * 3 * 2 * 1} = \frac{1}{15} = 0.0667$
2. (a)  $\frac{C(10, 6)}{C(26, 6)} = 0.00091231$   
 (b) remember that a majority mean more than half.  

$$\frac{C(9, 4) * C(17, 2) + C(9, 5) * C(17, 1) + C(9, 6) * C(17, 0)}{C(26, 6)} = 0.0840985$$
- (c)  $\frac{C(4, 4) * C(22, 2)}{C(26, 6)} = \frac{3}{2990} = 0.0010033445$
- (d)  $\frac{C(4, 2) * C(22, 4)}{C(26, 6)} = \frac{57}{299} = 0.1906354515$
3.  $\frac{C(7, 2) * C(8, 8) + C(7, 3) * C(8, 7) + C(7, 4) * C(8, 6)}{C(15, 10)} = \frac{69}{143} = 0.426573$
4.  $\frac{1}{\frac{11!}{4!4!2!}} = 0.00002886$
5.  $\frac{C(4, 2)}{C(52, 2)} = \frac{1}{221} = 0.0045$
6.  $\frac{3(1 * 1 * 14)}{15^3} + \frac{1}{15^3}$