Natural Computing, Assignment 3

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1.1

The probability that all three doctors give the correct answer is $0.8^3 = 0.512$.
The probability that at least 2 doctors make the right call is $0.8 * 0.8 * 0.2 + 0.8 * 0.2 * 0.8 + 0.2 * 0.8 * 0.8 = 0.384$
The probability that this group makes the right decision based on majority voting is $0.512 + 0.384 = 0.896$

1.2

The general formula is $\displaystyle\sum_{i=n/2}^{n} p^i * (1 - p)^{n-i} * \binom{n}{i}$