1. Heights of men on a baseball team have a bell shaped distrubtion with a mean of 172cm and a standard deviation of 7cm. Using that is the empirical rule, what is the approximate percentage of the men between the following values?
2. 165 cm and 179cm
3. 151cm and 193cm
4. Heights of women have a bell shaped distribution with a mean of 161cm and a standard deviation of 6cm. Using Chebyshev’s theorem, what do we know about the percentage of women with heights that are within 2 standard deviations of the mean? What are the minimum and maximum heights that are within 2 standard deviations of the mean?
5. Suppose a baseball player had 208 hits in a season. In the given probability distrubtion, the random variable x represents the number of hits the player obtained in a game.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  X |  0 |  1 |  2 |  3 |  4 |  5 |
| P(x) | 0.1134 | 0.4724 | 0.2734 | 0.0638 | 0.0367 | 0.0403 |

1. Compute and interpret the mean of the random variable x.

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1. Assume that a prodcure yields a binomial distrubtion with a trail repeated n times. Use a binomial probabilities table to find the probability of x successes given the probability p of success on a given trail.

n=2, x=2, p=0.70

P(2)=\_\_\_\_\_

1. The accompanying table describes results from eight offspring peas. The random x represents the number of offspring peas with green pods.
2. Find the probability of getting exactly 7 peas with green pods. (file attached)