Chapter 11 Extra Review



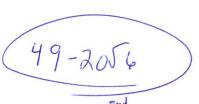
- 1. There are 14 girls on the varsity softball team.
- a) How many different batting line ups of 9 girls can he make from the 14 girls?

b) Of the 14 girls, 3 are pitchers, 5 are infielders, 2 are catchers, and the remaining are outfielders. How many teams can be made if the team of 9 consists of 1 pitcher, 1 catcher, 4 infielders and 3 outfielders?

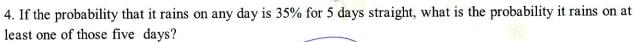
2. Expand. $(\sqrt{2} - \sqrt{3})^{\frac{1}{4}}$

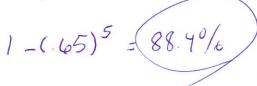
2. Expand.
$$(\sqrt{2} - \sqrt{3})^{4}$$

 $4 C_{0} (\sqrt{12})^{4} (\sqrt{13})^{2} = 4$
 $4 C_{1} (\sqrt{12})^{3} (-\sqrt{3})^{4} = 4 \cdot 2\sqrt{2} (-\sqrt{3})^{2} = -8\sqrt{6}$
 $4 C_{2} (\sqrt{12})^{2} (-\sqrt{13})^{2} = 6 \cdot 2 \cdot 3 = 36$
 $4 C_{3} (\sqrt{12})^{4} (-\sqrt{13})^{3} = 4\sqrt{2} (-3\sqrt{3})^{2} = -12\sqrt{6}$
 $4 C_{4} (\sqrt{12})^{6} (-\sqrt{13})^{4} = 9$

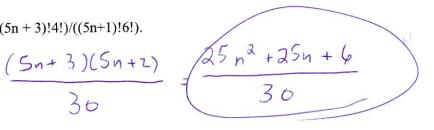


3. Out of the 30 men competing in the bachelorette, how many ways can they finish 1st, 2nd or 3rd?





5. Simplify
$$((5n+3)!4!)/((5n+1)!6!)$$
.



6. For the chapter 11 test, I have a test bank of questions. In the bank I have 5 questions from 11.1, 3 questions from 11.2, 2 questions from 11.3, 6 questions from 11.5, 4 questions from 11.6 and 4 questions from 11.7. How many ways can I make a test with 2 questions from each section?

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