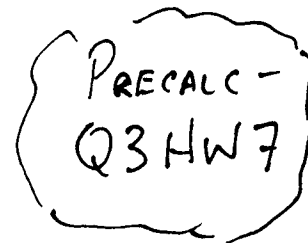


Practice

The Binomial Theorem and Probability



Find each probability if six coins are tossed.

1. $P(3 \text{ heads and } 3 \text{ tails})$
2. $P(\text{at least } 4 \text{ heads})$
3. $P(2 \text{ heads or } 3 \text{ tails})$
4. $P(\text{all heads or all tails})$

The probability of Chris's making a free throw is $\frac{2}{3}$. Find each probability if she shoots five times.

5. $P(\text{all missed})$
6. $P(\text{all made})$
7. $P(\text{exactly } 4 \text{ made})$
8. $P(\text{at least } 3 \text{ made})$

When Maria and Len play a certain board game, the probability that Maria will win the game is $\frac{3}{4}$. Find each probability if they play five games.

9. $P(\text{Len wins only } 1 \text{ game})$
10. $P(\text{Maria wins exactly } 2 \text{ games})$
11. $P(\text{Len wins at least } 2 \text{ games})$
12. $P(\text{Maria wins at least } 3 \text{ games})$

13. **Gardening** Assume that 60% of marigold seeds that are sown directly in the ground produce plants. If Tomaso plants 10 seeds, what is the probability that 7 plants will be produced?