Calculate the given expression.

1. $\dfrac{8!}{0!8!}$

2. $\dfrac{5!}{3!(5-3)!}$

3. $\dfrac{6!}{4!2!}$

4. $\dfrac{10!}{9!1!}$

5. $\dfrac{13!}{5!8!}$

6. $_{10}C_0$

7. $_5C_3$

8. $_{13}C_5$

9. $_{20}C_3$

10. $_{100}C_1$

11. How many different ways can a club of 20 members select a 3-member officer nominating committee from its membership if all members are eligible to serve on the committee?

12. How many 5-card hands are possible from a standard deck of 52 playing cards if the cards are drawn without replacement?

13. How many ways can 3 pizza toppings be selected from a choice of 12 toppings if each topping can be chosen only once?

14. How many ways can 7 out of 15 patients with the same illness be randomly selected to receive an experimental drug?

15. How many different ways can 5 out of 8 different shirts, 4 out of 10 different pairs of slacks, and 3 out of 6 different ties be selected?