

## Probability Counting - Choose N Cards from M, Count of Favorable Outcomes - To Factorial Equation

1

How many ways can three Queens be drawn from this set? Show as a factorial.



- |   |                          |   |                          |
|---|--------------------------|---|--------------------------|
| A | $\frac{4!}{3! \cdot 1!}$ | B | $\frac{5!}{5! \cdot 0!}$ |
| C | $\frac{3!}{4! \cdot 1!}$ | D | 4!                       |

2

How many ways can two 7s be drawn from this set? Show as a factorial.



- |   |                          |   |                          |
|---|--------------------------|---|--------------------------|
| A | $\frac{3!}{2! \cdot 1!}$ | B | $\frac{5!}{2! \cdot 3!}$ |
| C | 3!                       |   |                          |

3

How many ways can three 5s be drawn from this set? Show as a factorial.



- |   |                          |   |                          |
|---|--------------------------|---|--------------------------|
| A | $\frac{4!}{3! \cdot 1!}$ | B | 4!                       |
| C | $\frac{6!}{2! \cdot 4!}$ | D | $\frac{3!}{4! \cdot 1!}$ |

4

How many ways can two 8s be drawn from this set? Show as a factorial.



- |   |                          |   |                          |
|---|--------------------------|---|--------------------------|
| A | $\frac{5!}{2! \cdot 3!}$ | B | $\frac{2!}{3! \cdot 1!}$ |
| C | $\frac{3!}{3! \cdot 0!}$ | D | 3!                       |
| E | $\frac{3!}{2! \cdot 1!}$ |   |                          |

5

How many ways can two 7s be drawn from this set? Show as a factorial.



- |   |                          |   |                          |
|---|--------------------------|---|--------------------------|
| A | $\frac{6!}{3! \cdot 3!}$ | B | $\frac{4!}{2! \cdot 2!}$ |
| C | $\frac{2!}{4! \cdot 2!}$ | D | $\frac{4!}{2!}$          |

6

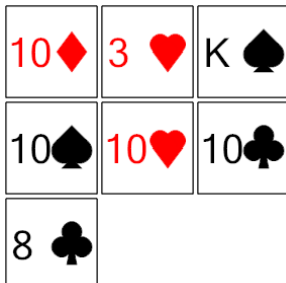
How many ways can two 3s be drawn from this set? Show as a factorial.



- |   |                          |   |                          |
|---|--------------------------|---|--------------------------|
| A | $\frac{4!}{2!}$          | B | $\frac{2!}{4! \cdot 2!}$ |
| C | $\frac{3!}{3! \cdot 0!}$ | D | $\frac{4!}{2! \cdot 2!}$ |

7

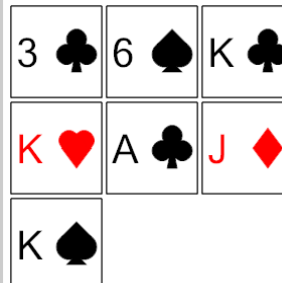
How many ways can two 10s be drawn from this set? Show as a factorial.



- |   |                          |   |                          |
|---|--------------------------|---|--------------------------|
| A | $\frac{4!}{2! \cdot 2!}$ | B | $\frac{3!}{3! \cdot 0!}$ |
| C | $\frac{2!}{4! \cdot 2!}$ | D | $\frac{4!}{2!}$          |

8

How many ways can two Kings be drawn from this set? Show as a factorial.



- |   |                          |   |                          |
|---|--------------------------|---|--------------------------|
| A | $\frac{3!}{2! \cdot 1!}$ | B | $\frac{2!}{3! \cdot 1!}$ |
| C | 3!                       |   |                          |