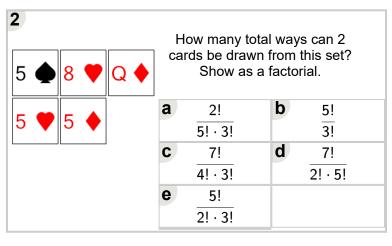Math worksheet on *'Probability Counting - Choose [*
Count of Total Outcomes - To Factorial Equation (Le[
broader unit on *'Probability and Statistics - Perm[*
Combinations Calculating - Practice[

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1

| 7♣ | K♠ | 7♠ |
| 6♦ | 7♥ | 3♣ |

How many total ways can 2 cards be drawn from this set? Show as a factorial.

a	$\dfrac{6!}{2! \cdot 4!}$	b	$\dfrac{4!}{3! \cdot 1!}$
c	$\dfrac{5!}{2! \cdot 3!}$	d	$\dfrac{6!}{4!}$
e	$\dfrac{5!}{3! \cdot 2!}$	f	$\dfrac{2!}{6! \cdot 4!}$

2

| 5♠ | 8♥ | Q♦ |
| 5♥ | 5♦ | |

How many total ways can 2 cards be drawn from this set? Show as a factorial.

a	$\dfrac{2!}{5! \cdot 3!}$	b	$\dfrac{5!}{3!}$
c	$\dfrac{7!}{4! \cdot 3!}$	d	$\dfrac{7!}{2! \cdot 5!}$
e	$\dfrac{5!}{2! \cdot 3!}$		

3

3♦	9♥	J♦
9♣	9♠	4♣
Q♣		

How many total ways can 2 cards be drawn from this set? Show as a factorial.

a	$\dfrac{2!}{7! \cdot 5!}$	b	$\dfrac{7!}{2! \cdot 5!}$
c	$\dfrac{7!}{5!}$		

4

5♦	4♠	Q♠
5♥	J♥	5♠
5♣		

How many total ways can 2 cards be drawn from this set? Show as a factorial.

a	$\dfrac{9!}{2! \cdot 7!}$	b	$\dfrac{7!}{5!}$
c	$\dfrac{7!}{2! \cdot 5!}$	d	$\dfrac{5!}{2! \cdot 3!}$

5

| 5♥ | 7♦ | 5♣ |
| 5♠ | 5♦ | |

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

a	$\dfrac{4!}{2! \cdot 2!}$	b	$\dfrac{3!}{2! \cdot 1!}$
c	$\dfrac{5!}{2!}$	d	$\dfrac{5!}{3! \cdot 2!}$

6

J♦	6♦	K♦
6♥	6♣	2♥
6♠		

How many total ways can 2 cards be drawn from this set? Show as a factorial.

a	$\dfrac{7!}{2! \cdot 5!}$	b	$\dfrac{7!}{5!}$
c	$\dfrac{5!}{2! \cdot 3!}$	d	$\dfrac{6!}{2! \cdot 4!}$
e	$\dfrac{2!}{7! \cdot 5!}$	f	$\dfrac{8!}{2! \cdot 6!}$

7

| 8♣ | 6♥ | 6♦ |
| 7♣ | 6♣ | 6♠ |

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

a	$\dfrac{6!}{3! \cdot 3!}$	b	$\dfrac{3!}{6! \cdot 3!}$
c	$\dfrac{6!}{2! \cdot 4!}$	d	$\dfrac{6!}{3!}$
e	$\dfrac{4!}{2! \cdot 2!}$		