mobi

Math worksheet on *'Probability Counting - Duplicate 5 Cards, 2 Repeats - to Factorial Equation (Level 1)'*. broader unit on *'Probability and Statistics - Binomial Intro'*
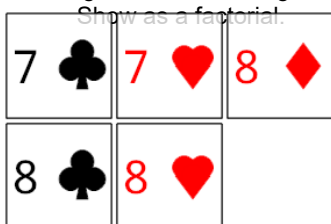
Learn online:

app.mobius.academy/math/units/probability_and_statistics_probability_with_binomial

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1 How many ways can these cards be arranged to still be arranged smallest to largest? Show as a factorial.

| 6 ♥ | 6 ♣ | 7 ♣ |
| 8 ♣ | 8 ♥ | |

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

d	e	f
$3! \cdot 2!$	$2! \cdot 4!$	$2! \cdot 2!$

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2 How many ways can these cards be arranged to still be arranged smallest to largest? Show as a factorial.

| 7 ♣ | 7 ♥ | 8 ♦ |
| 8 ♣ | 8 ♥ | |

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

d	e	f
$4! \cdot 2!$	$\dfrac{2!}{3! \cdot 2!}$	$3! \cdot 4!$

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3 How many ways can these cards be arranged to still be arranged smallest to largest? Show as a factorial.

| 3 ♠ | 3 ♦ | 4 ♠ |
| 4 ♥ | 4 ♦ | |

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

d	e	f
$3! \cdot 4!$	$\dfrac{2!}{3! \cdot 2!}$	$3! \cdot 3!$

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4 How many ways can these cards be arranged to still be arranged smallest to largest? Show as a factorial.

| 2 ♦ | 2 ♠ | 2 ♣ |
| 3 ♠ | 3 ♥ | |

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

d	e	f
$2! \cdot 5!$	$3! \cdot 3!$	$\dfrac{2!}{2! \cdot 3!}$

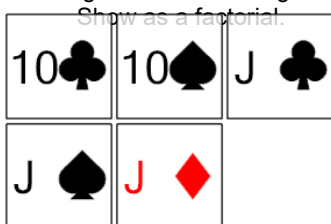**5** How many ways can these cards be arranged to still be arranged smallest to largest? Show as a factorial.

| 7 ♥ | 7 ♦ | 8 ♣ |
| 8 ♥ | 8 ♦ | |

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

d	e	f
$3! \cdot 4!$	$5! \cdot 2!$	$4! \cdot 2!$

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6 How many ways can these cards be arranged to still be arranged smallest to largest? Show as a factorial.

| 10 ♣ | 10 ♠ | J ♣ |
| J ♠ | J ♦ | |

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

d	e	f
$3! \cdot 3!$	$3! \cdot 2!$	$\dfrac{1}{3! \cdot 2!}$

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7 How many ways can these cards be arranged to still be arranged smallest to largest? Show as a factorial.

| 7 ♥ | 7 ♣ | 8 ♦ |
| 8 ♥ | 8 ♠ | |

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

d	e	f
$3! \cdot 2!$	$4! \cdot 2!$	$5! \cdot 2!$