

<p>(۱) $(n-1)! \rightarrow 8!$ ✓ ①</p>	<p>(۱) $n! \rightarrow 4!$ ✓ ①</p>	<p>۱</p>
<p>(۵) $\binom{4}{2} \times 4!$ ✓ ①</p>	<p>(۳) $\frac{(n-1)!}{2} \rightarrow \frac{8!}{2}$ ✓ ①</p>	<p>۲</p>
<p>(۶) $\binom{4}{2} \times \frac{4!}{2}$ ✓ ①</p>	<p>(۵) $\binom{6}{2} \times 3!$ ✓ ①</p>	<p>۳</p>
<p>(۱) $abef$ ad 8! ✓ ①</p>	<p>(۷) $a b d e f$ ① ✓ $\binom{4}{3} \times 4!$</p>	<p>۴</p>
<p>(۱۰) $\frac{9!}{2!}$ ✓ ①</p>	<p>(۹) $e d a b e f$ ① ✓ $2! \times 8!$</p>	<p>۵</p>

(12)

$\frac{4!}{3!}$ ✓ (1)

Diagram: Three circles labeled c, d, e with arcs connecting c to d and d to e.

(11)

$3! \times 4!$ ✓ (1)

Diagram: A circle labeled c, d, e, a, b, f with arcs connecting c to d and d to e.

(15)

$\frac{4!}{2! \cdot 2!}$ ✓ (1)

Diagram: Two pairs of circles labeled c, d and e, f with arcs connecting c to d and e to f.

(13)

$\frac{4!}{3!}$ ✓ (1)

Diagram: Three circles labeled c, d, e with arcs connecting c to d and c to e.

(14)

$2! \times 2! \times 2!$ ✓ (1)

Diagram: Two groups of three circles each, with arcs connecting circles within each group.

(18)

$2! \times 4!$ ✓ (1)

Diagram: One group of three circles and one group of four circles, with arcs connecting circles within each group.

(17)

$1! - (2! \times \binom{4}{2} \times 2!) - (2! \times 2! \times 2!)$

\tilde{A}	ies	\tilde{B}
$4! \times 2!$	$2! - (A+B)$	$2! \times 2! \times 2!$
	$2! - (2! \times 2! + 2! \times 2! \times 2!)$	$\binom{4}{2} \times 2! \times 2!$

(16)

$2! \times \binom{4}{2} \times 2!$ ✓ (1)

(20)

$2! \times 4!$ ✓ (1)

(19)

$2! \times 2! \times 2!$ ✓ (1)