



Math worksheet on 'Probability Calculation - Binomial Over Simple Multiplication (Level 1)'. Part of a book 'Probability and Statistics - Permutations and Combinations - Practice'

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1 What is the value of this probability expression?

$$\frac{\binom{6}{4}}{\binom{6}{3} \cdot \binom{2}{2}}$$

| | | | | | |
|---|---------------|---|---|---|---------------|
| a | 15 | b | 1 | c | $\frac{1}{4}$ |
| d | $\frac{3}{4}$ | | | | |

2 What is the value of this probability expression?

$$\frac{\binom{6}{4}}{\binom{5}{3} \cdot \binom{5}{4}}$$

| | | | | | |
|---|---------------|---|----------------|---|----------------|
| a | $\frac{3}{2}$ | b | $\frac{1}{50}$ | c | $\frac{3}{10}$ |
| d | $\frac{3}{4}$ | e | 20 | | |

3 What is the value of this probability expression?

$$\frac{\binom{5}{5}}{\binom{3}{2} \cdot \binom{5}{4}}$$

| | | | | | |
|---|---------------|---|----------------|---|---------------|
| a | $\frac{2}{5}$ | b | $\frac{1}{15}$ | c | $\frac{1}{5}$ |
| d | 1 | | | | |

4 What is the value of this probability expression?

$$\frac{\binom{6}{6}}{\binom{4}{3} \cdot \binom{5}{2}}$$

| | | | | | |
|---|----------------|---|----------------|---|---|
| a | $\frac{1}{40}$ | b | $\frac{1}{12}$ | c | 1 |
| d | $\frac{1}{4}$ | e | 6 | | |

5 What is the value of this probability expression?

$$\frac{\binom{6}{3}}{\binom{5}{2} \cdot \binom{2}{2}}$$

| | | | | | |
|---|----------------|---|----------------|---|---|
| a | $\frac{3}{2}$ | b | 20 | c | 2 |
| d | $\frac{1}{10}$ | e | $\frac{10}{3}$ | | |

6 What is the value of this probability expression?

$$\frac{\binom{2}{2}}{\binom{5}{2} \cdot \binom{4}{3}}$$

| | | | | | |
|---|----------------|---|----------------|---|----------------|
| a | $\frac{3}{5}$ | b | $\frac{1}{40}$ | c | $\frac{1}{60}$ |
| d | $\frac{1}{10}$ | | | | |

7 What is the value of this probability expression?

$$\frac{\binom{4}{2}}{\binom{6}{6} \cdot \binom{3}{2}}$$

| | | | | | |
|---|---------------|---|---|---|---|
| a | $\frac{1}{3}$ | b | 2 | c | 5 |
| d | 30 | | | | |