

Calculus exercises

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Exercise 1. $\frac{1}{2}$, $\frac{1}{2}$, $\frac{4}{36}$ and $\frac{1}{2}$.

Exercise 2. $\frac{5 \cdot 4 \cdot 4}{9 \cdot 8 \cdot 7}$.

Exercise 3. There is no information to answer this question.

Exercise 4.

$$\frac{1}{2}, \frac{1}{3}, \frac{1}{6}$$

Exercise 5. Yes.

Exercise 6.

$$1 - \frac{365!}{265! \cdot 365^{100}}$$

Exercise 7.

$$\frac{9}{24}$$

Exercise 8.

$$\frac{r}{100}$$

Exercise 9.

$$\frac{\binom{5}{2} \cdot 2}{50 \cdot 49}$$

Exercise 10.

1.

$$\frac{40}{\binom{52}{5}}$$

2.

$$\frac{48 \cdot 13}{\binom{52}{5}}$$

3.

$$\frac{13 \cdot 12 \cdot \binom{4}{2} \binom{4}{3}}{\binom{52}{5}}$$

4.

$$\frac{4 \binom{13}{5}}{\binom{52}{5}}$$

5.

$$\frac{10 \cdot (4^5 - 4)}{\binom{52}{5}}$$

6.

$$\frac{13 \binom{12}{2} \binom{4}{3} 4^2}{\binom{52}{5}}$$

7.

$$\frac{\binom{13}{2} 11 \binom{4}{2}^2 4}{\binom{52}{5}}$$

8.

$$\frac{\binom{4}{2} 11 \binom{4}{2} 4^3}{\binom{52}{5}}$$

9.

$$\frac{\binom{4}{2} 11 \binom{4}{2} 4^3}{\binom{52}{5} 13}$$