Quiz 3

1

1/1 point (graded)

$|A \cup B| = |A| + |B|$ when

- [x] A and B are disjoint, ✔
- [x] A is the complement in B, ✔
- [x] A and B do not intersect, ✔
- [x] One of A and B is empty. ✔

✔

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Answers are displayed within the problem

2

1/1 point (graded)

from slow to fast, rank the functions n^2, 2^n, n in terms of their growth speed as n increases.

- (•) $n, n^2, 2^n$ ✔

- $n, 2^n, n^2$
- $2^n, n, n^2$
- $2^n, n^2, n$

Answer
Correct: Video: Counting - Cartesian Products

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Answers are displayed within the problem

3

1/1 point (graded)
For sets P and Q, the notation P^Q represents:

- The set of functions from Q to P ✔
- The set of functions from P to Q
- The number of functions from Q to P
- The number of functions from P to Q

Answer
Correct: Video: Counting - Cartesian Products

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Answers are displayed within the problem

4

1/1 point (graded)

Let X be the set of 26 English letters. Then $|\{(x,y) : x,y \in X, x \neq y\}| =$

- 26×25 ✔
- 26×26
- $26 + 26$
- $26 + 25$

Answer

Correct: Video: Counting - Mix It Up

Submit

Answers are displayed within the problem

5

1/1 point (graded)

If $G = \{0, 2, 4, 6, 8\}$, then what is $|G^4|$?

- 5^4 ✔
- 4^5
- $5 \times 4 \times 3 \times 2 \times 1$
- $0 + 2 + 4 + 6 + 8$

Answer

Correct: Video: Counting - Mix It Up

Submit

Answers are displayed within the problem