

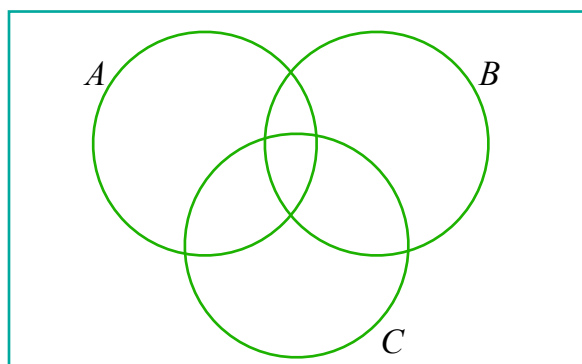
آزمون نظریه‌ی مجموعه‌ها نمودار ون

بهزاد رنجبری

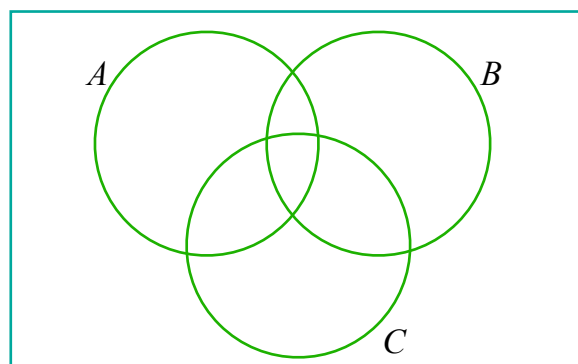
کلاس فردوسی

در هر یک از سوالات زیر برای هر دو طرف تساوی با استفاده از رنگ آمیزی نمودار ون، تحلیل کنید که تساوی برقرار هست یا خیر.

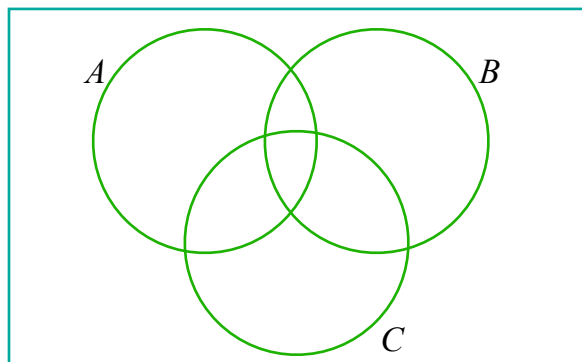
$$۱. (U - A) \cap (U - B) = U - (A \cap B)$$



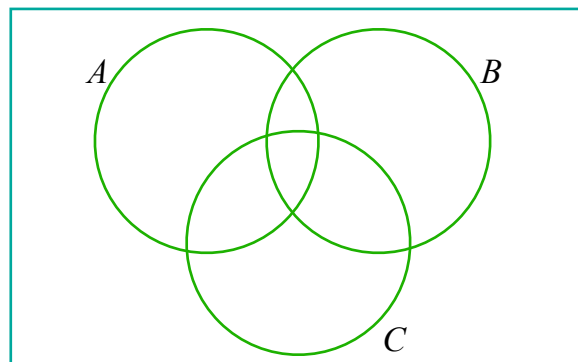
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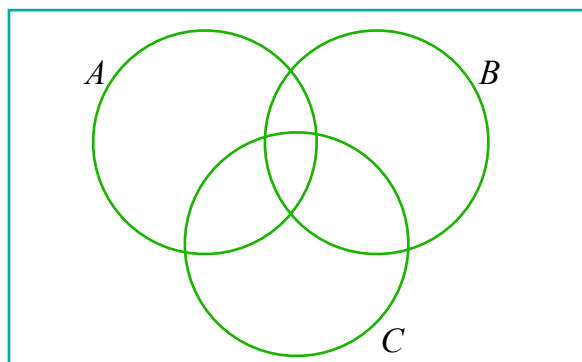
$$۲. A \cap (B \cup C)' = (A - B) - C'$$



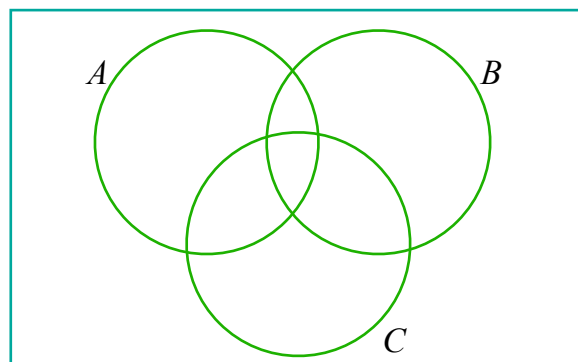
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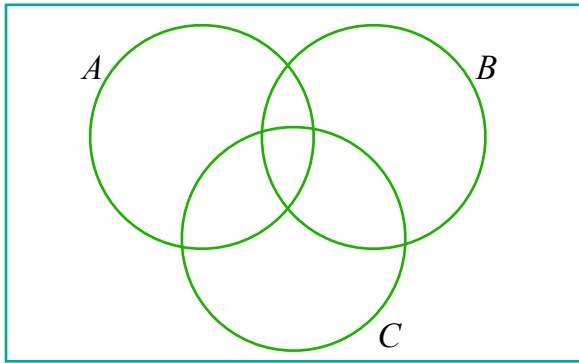
$$۳. (A - B) \cup (B - A) = (A \cup B) - (A \cap B)$$



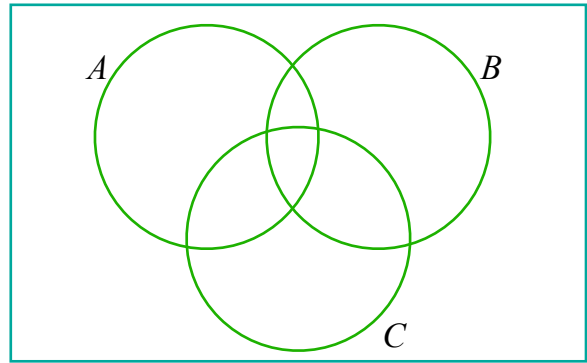
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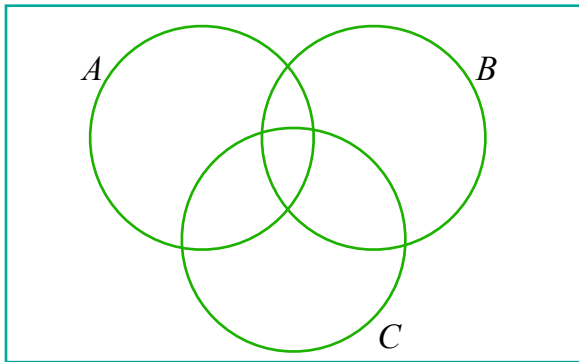
$$(A' \cap B')' = A \cup B \quad \text{.}\epsilon$$



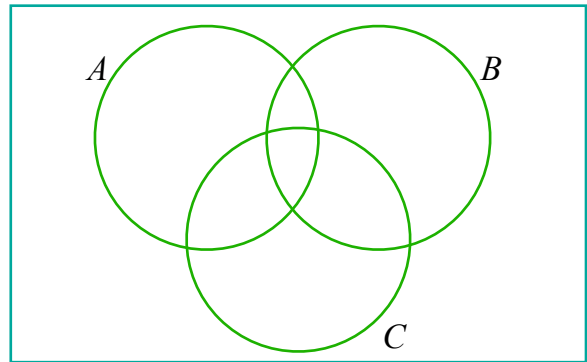
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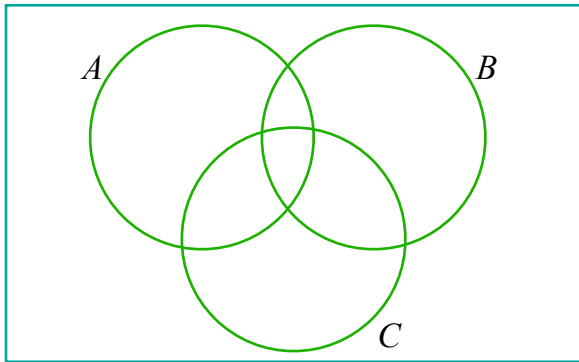
$$(A \cup B) - C = (A - C) \cup (B - C) \quad \text{.}\delta$$



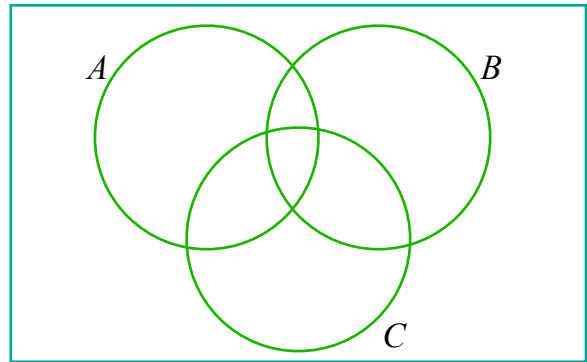
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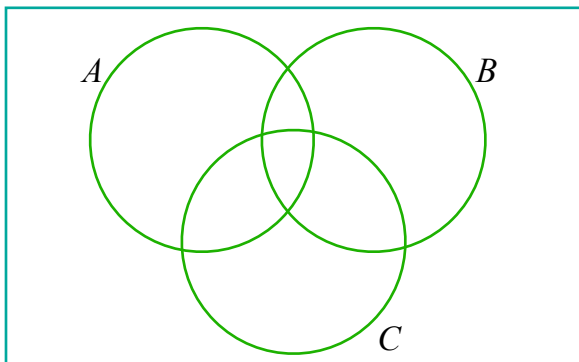
$$A - (A - B) \subseteq B \quad \text{.}\zeta$$



=



$$(A - B) - C = A - (B \cup C) \quad \text{.}\eta$$



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