

Tuesday, October 06, 2009

Q1]... Suppose $A = \{a, b, c\}$ and that $\mathcal{P}(A)$ denotes the power set of A . Say whether the following are true or false.

(1) $\{a\} \in A$.

(2) $\{a\} \in \mathcal{P}(A)$.

(3) $\emptyset \subset \mathcal{P}(A)$.

(4) $\emptyset \in \mathcal{P}(A)$.

(5) $(a, c) \in A \times A$.

(6) $|A \times A| = 2^3$.

(7) $|\mathcal{P}(A)| = 3^2$.

(8) $|\{(x, y) \in A \times A \mid x \neq y\}| = 3$.