

(14) SETS – SET

(a) Set Semesta / Universal sets ( $\xi$ ) – nilai didalam carta venn, tiada nilai lain diluar carta

Elemen ( $\in$ ) – benda di dalam set

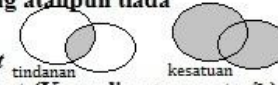
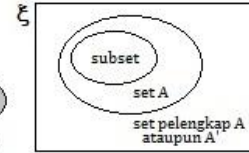
Subset ( $\subset$ ) – set dalam set

Set Kosong / empty set ( $\{ \}$ ,  $\emptyset$ ) – nilai dalam set kosong ataupun tiada

Tindanan / intersection ( $\cap$ ) – bertindih

Kesatuan / union ( $\cup$ ) – kesemua nilai / tambah dua set

Set Pelengkap / complements of sets ( $'$ ) - nilai di luar set (Kecuali set semesta  $\xi$ )



Contoh :

$$\xi = \{ 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 \}$$

$$A = \{ 3, 4, 5 \}, \quad B = \{ 4, 5, 6, 7, 8 \}, \quad C = \{ \text{nombor lebih besar dari 10} \}$$

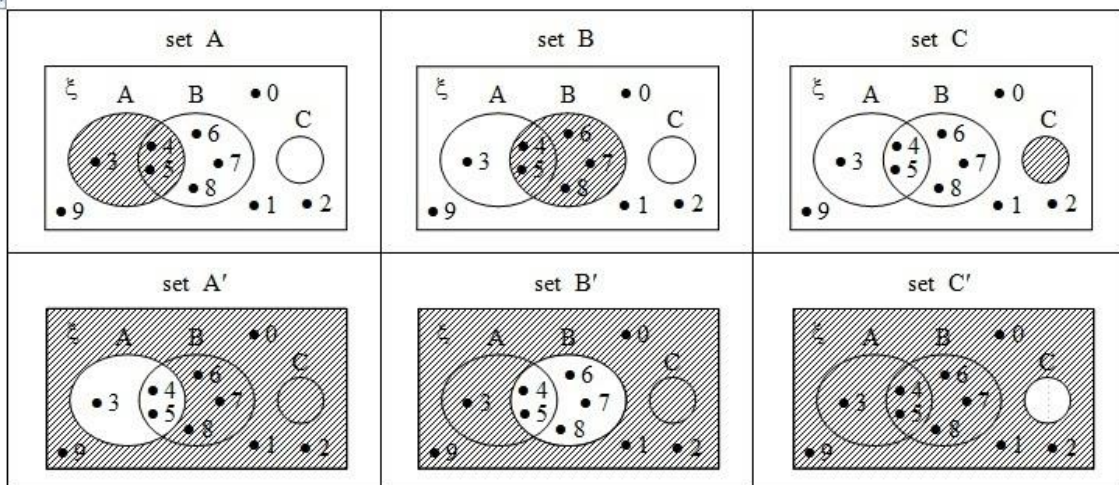
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|--|--|
| <ul style="list-style-type: none"> <li>• <math>3 \in A, 4 \in A, 5 \in A</math></li> <li>• <math>0 \notin B, 1 \notin B, 2 \notin B, 3 \notin B, 9 \notin B</math></li> <li>• <math>C = \{ \}</math> or <math>C = \emptyset</math></li> <li>• <math>A \neq B</math></li> <li>• <math>n(B) = 5</math></li> <li>• <math>A \not\subset B</math></li> <li>• <math>\{ \} \subset A, \emptyset \subset B</math></li> </ul> | <ul style="list-style-type: none"> <li>• the number of subsets of <math>A = 2^3 = 8</math></li> <li>• subset of <math>A = \{ \}, \{3\}, \{4\}, \{5\}, \{3, 4\}, \{3, 5\}, \{4, 5\}, \{3, 4, 5\}</math></li> <li>• <math>A' = \{0, 1, 2, 6, 7, 8, 9\}</math></li> <li>• <math>A \cap B = \{4, 5\}</math></li> <li>• <math>(A \cap B)' = \{0, 1, 2, 3, 6, 7, 8, 9\}</math></li> <li>• <math>A \cup B = \{3, 4, 5, 6, 7, 8\}</math></li> <li>• <math>(A \cup B)' = \{0, 1, 2, 9\}</math></li> </ul> |
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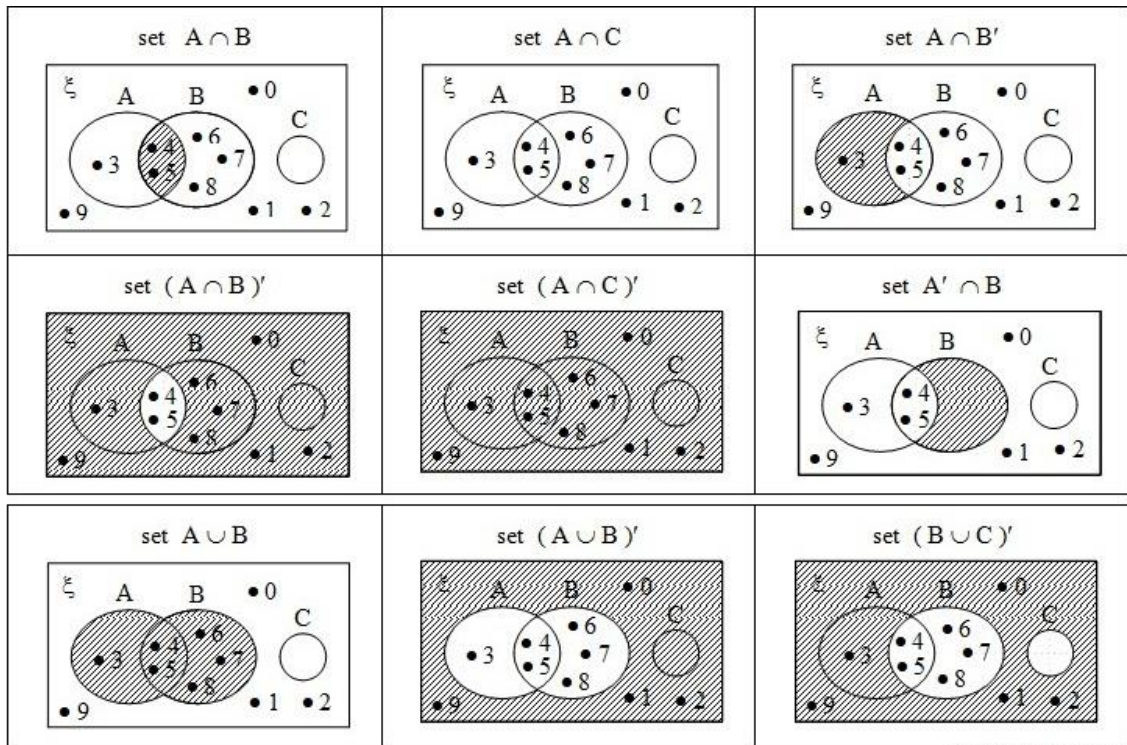
\*\* bilangan subset untuk set =  $2^n$  , n adalah elemen

\*\* Semua set ada mempunyai set kosong sebagai subset

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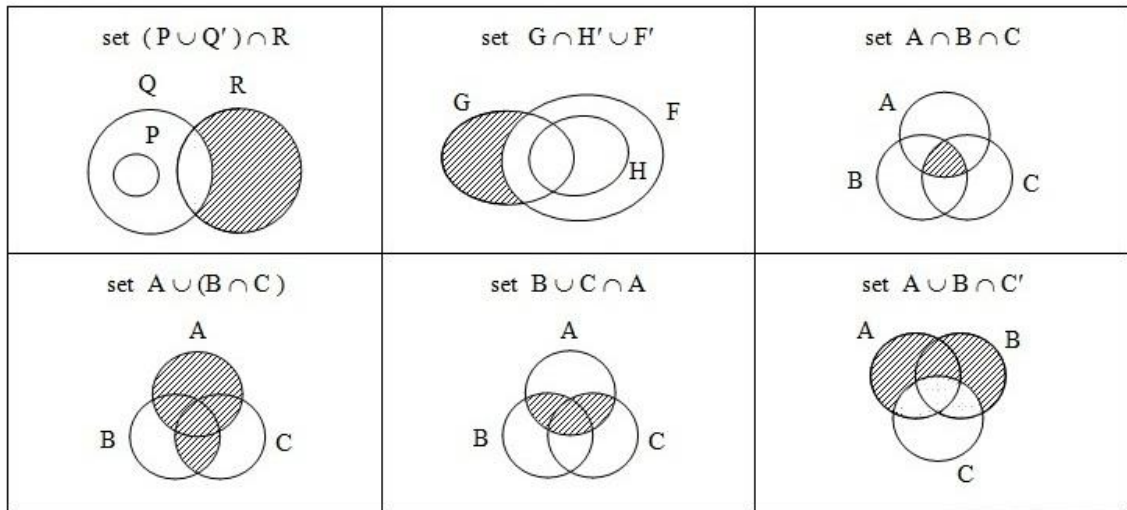
(b) Gambarajah Venn / Venn Diagrams





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(c) Contoh - Contoh :



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