

# Math 1303 - Math in the Liberal Arts

Quiz #7 - 2005.09.28

Solutions

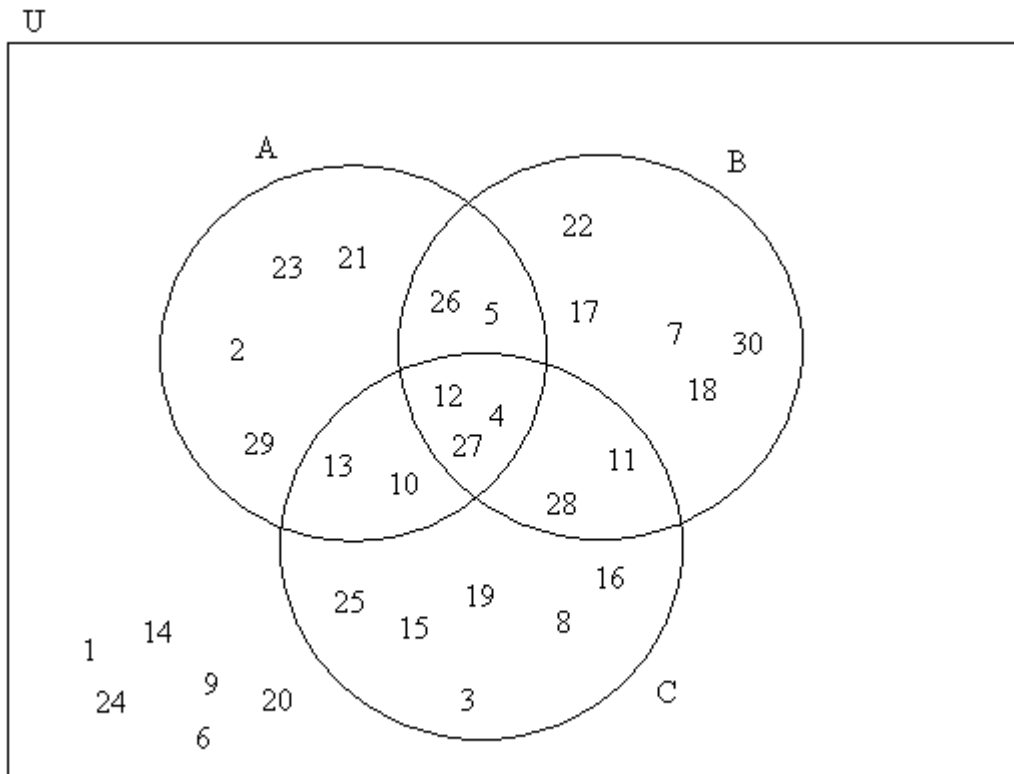
Let  $U = \{x \mid (x \in \mathbb{N}) \wedge (x \leq 30)\}$  be the universal set. Consider the following proper subsets of  $U$ :

$$A = \{2, 4, 5, 10, 12, 13, 21, 23, 26, 27, 29\}$$

$$B = \{4, 5, 7, 11, 12, 17, 18, 22, 26, 27, 28, 30\}$$

$$C = \{3, 4, 8, 10, 11, 12, 13, 15, 16, 19, 25, 27, 28\}$$

1. Fill out the following diagram completely.



2. Compute the following sets:

a)  $(A \cup B \cup C)'$

$$(A \cup B \cup C)' = \{1, 6, 9, 14, 20, 24\}$$

b)  $A \cap B \cap C$

$$A \cap B \cap C = \{4, 12, 27\}$$