Question # 01: (06)

There are 21 typists in an office, 5 use all manual typewriters (M), electronic typewriters (E) and word processor (W), 9 use E and W, 7 use M and W, 6 use M and E, but no one uses M only.

1. Represent this information in a Venn diagram.
2. If the same number of typists use electronic as use word processors, then
3. How many use word processor only,
4. How many use electronic typewriters?

Question #02:

(a) Rewrite each of the following statements in the two forms “∀*x*, if \_\_\_\_\_\_\_, then \_\_\_\_\_\_” and “∀ \_\_\_\_\_\_\_\_\_ *x*, \_\_\_\_\_\_\_\_\_\_” (without an if-then).

1. All equilateral triangles are isosceles.
2. Every computer science student needs to take data structures.

(b) Write the negation of each statement

1. ∀ real numbers *x*, if *x* 2 ≥ 1 then *x >* 0.
2. ∀ integers *d*, if 6*/d* is an integer then *d* = 3.

Submit handwritten assignment to CR on 24.10.2019

**Note: Late submission will not be accepted**