

# CSE 300: Online Assignment

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## 1 Introduction

This assignment has been designed to assess the preparation of the students in writing scientific articles using L<sup>A</sup>T<sub>E</sub>X. This assignment covers a variety of components that are commonly used in scientific manuscripts

### 1.1 Equations

Let  $C$  be a simple piecewise smooth curve that bounds a region  $D$  in the plane. If  $P(x, y)$  and  $Q(x, y)$  have continuous partials in an open region containing  $D$ , then

$$\int_C Pdx + Qdy = \iint_D \frac{\partial Q}{\partial x} - \frac{\partial P}{\partial y} dA$$

If  $\mathbf{F}$  is a vector field with third component 0 defined on a domain  $D$  enclosed by boundary  $C$  then

$$\oint_C \mathbf{F} \cdot d\mathbf{r} = \iint_D (\nabla \times \mathbf{F}) \cdot \mathbf{k} dA$$

Similarly, if  $C$  is defined by  $\mathbf{r}(t) = \langle x(t), y(t) \rangle$

$$\oint_C \mathbf{F} \cdot \mathbf{n} ds = \iint_D \nabla \cdot \mathbf{F} dA$$

### 1.2 Tables

We wish to place the Table at the bottom of the page.

### 1.3 Figures

We intend to put Figure 1 at the top of a page.

## 2 Conclusions

The major objectives of this assignment are listed below (please do not ignore the font sizes).

- To assess the ability of the students in preparing manuscripts in L<sup>A</sup>T<sub>E</sub>X.
- To see if the students have adequately practiced different aspects of writing in L<sup>A</sup>T<sub>E</sub>X.
- To see if the students can add various basic components (e.g., tables, figures, equations) to a L<sup>A</sup>T<sub>E</sub>Xmanuscript.
- To see if the students can leverage the available materials (both offline and online) to do something which has not explicitly been taught in the class.

Item List			
Item Name or Product Name	ALPHA 2 Code	ALPHA 3 Code	Numeric Code
Item001	AF	AFG	001 002
Item002	AX	ALA	003
Item003	AL	ALB	004 005 006 008
Item004	DZ	DZA	009 010
Item005	AS	ASM	011 012
Item006	AD	AND	013
Item007	AO	AGO	014

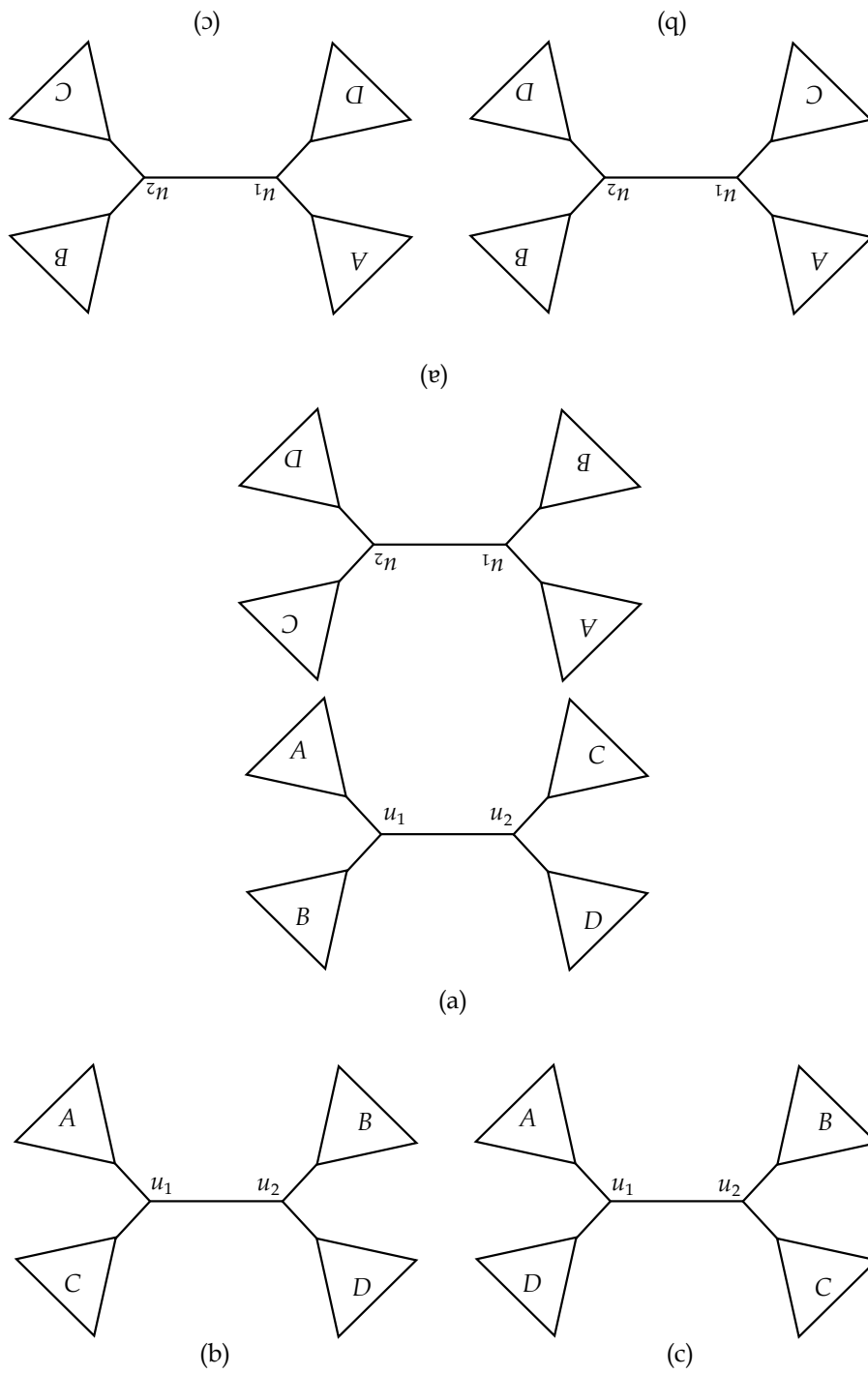


Figure 1: **Same figure upside down**