

Design and Implementation of Flipped Classroom

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The Flipped Classroom

DURING



Students practice applying key concepts and feedbacks

IN CLASS

GOALS

GOALS

GOALS

Students prepare to participate in class activities



BEFORE

OUT OF CLASS

Students check their understanding and extend their learning



AFTER

Before the class

- Students review course materials
 - Videos
 - Textbook Chapters
- Complete an assessment - graded

Before the class – assessment

Question 1 – Norton's theorem

Norton's Current is equal to the current passing through the _____
circuited _____ terminals

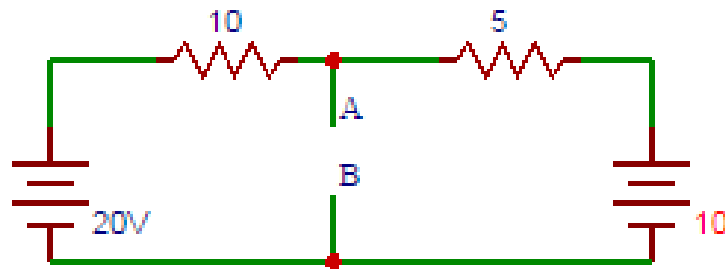
- a) short, input
- b) short, output
- c) open, output
- d) open, input

Before the class – assessment

Question 2 - Thevenin's theorem

Find the current flowing between terminals A and B.

- a) 1A
- b) 2A
- c) 3A
- d) 4A

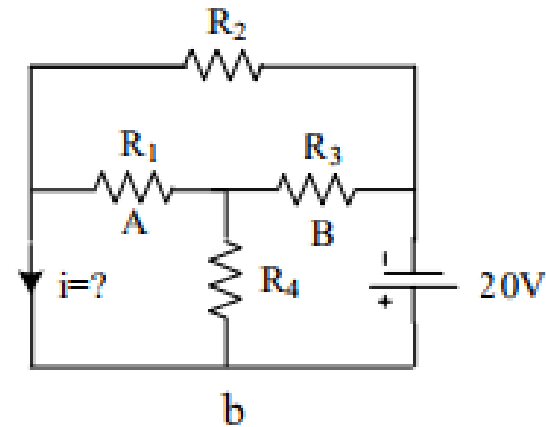
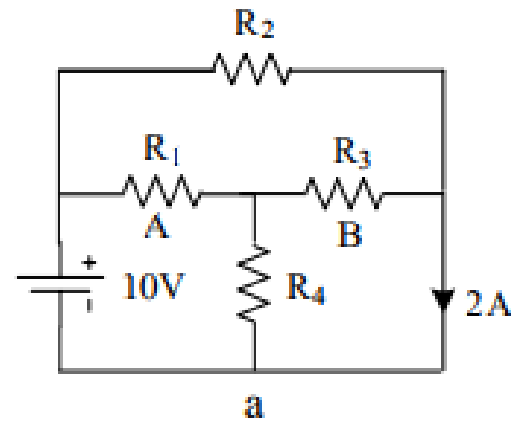


Before the class – assessment

Question 3 - Reciprocity theorem

Use the data of the figure (a). The current I in the circuits of the figure (b).


- a) $-2A$
- b) $2A$
- c) $4A$
- d) $-4A$



Before the class – assessment

- Collect student responses
- Analyze student responses
 - students' performance on different concepts
 - identify concepts in which students' performance is good, average, and poor
- Prepare a plan to address concepts on which students' performance was average and poor

During the class

- Execute the plan to clarify the concepts which need attention
 - Explain the concept in brief
 - Let students solve problems in group  **Team formation**
 - Let students solve problems individually and discuss with peers

After the class – assessment

- Provide practice problems
- Homework or assignments
- Post-tests
- Exams

Reasons Why Flipped Classroom Model Works

1. Students can revisit information whenever they choose
2. Class time can be used to engage in valuable discussions
3. Course instructors have more opportunity to offer feedback
4. Lessons can be more personalized

Advantages of Flipped Classroom

1. Enhanced classroom behavior
2. Increased control over students' own learning
3. Identification of thinking errors
4. Enhanced student collaboration
5. Access to curriculum materials
6. Enhanced engagement between students, and student-teacher
7. Materials could be used repetitively
8. Quizzes and testing

Questions?

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Thank you