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USER MANUAL
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PART A

1.0 INTRODUCTION

1.1 Overview

The Intelligent Multimedia Help System for Arithmetic is developed to fulfill the requirements for Master of Computer Science (Multimedia) University of Malaya. This system composes of 3 modules and 4 sub modules. There are as follows:-

*Main Module*  
1. Learning  
2. Practice  
3. Help  

*Sub Module*  
- Beginner  
- Intermediate

2.0 STANDARDS

2.1 Objects in Intelligent Multimedia Help System (ARITHELP)

The following are the descriptions of the objects that used in ARITHELP.

<table>
<thead>
<tr>
<th>Object</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Push button</td>
<td>Click to activate action</td>
</tr>
<tr>
<td>2. Data field</td>
<td>For data entry</td>
</tr>
<tr>
<td>3. Scroll bar</td>
<td>Scroll up and down to view records</td>
</tr>
<tr>
<td>4. Menu Bar</td>
<td>Click on the menu to activate</td>
</tr>
</tbody>
</table>

2.2 Screen Layout

ARITHELP is developed using window base format. There are three types of screen.

1. Main screen
2. Sub screen
3. Dialogue screen
2.2.1 Main Screen

Main screen has a full size screen layout. Each screen will have a title. Examples of main screen are Learn (Beginner), Learn (Intermediate), Learn (Advanced), Practice (Beginner), Practice (Intermediate), Practice (Advanced), and Help Index.
2.2.2 Sub Screen

A sub screen is a pop up screen that is displayed when the push button is pressed. For example when you click the Search button, the list of search item will appear. Click Display to read the content and Cancel to avoid it.

![Search Topics]

2.2.3 Dialogue Screen

Dialogue screen is a pop up screen that prompts a message before proceeding. The dialogue screen will appear when the user click on the stop button. Click Yes to exit the system or Cancel to avoid it.

![Do you really wish to exit?]
2.3 Standard Push Button

2.3.1 Screen Button

Push button will be displayed at the top and bottom of each screen to activate an action. There are eight major push button in ARITHELP screen namely:

1. Previous button
   To go to the previous page. Example:-
   ![Previous Button]

2. Next button
   To go to the next page. Example:-
   ![Next Button]

3. Search button
   To view search items. Example:-
   ![Search Button]

4. Help button
   To get help from the system. Example:-
   ![Help Button]

5. Exit button
   To quit from the system. Example:-
   ![Stop Button]
6. **Main Menu** button

To go to main menu. Example:-

![Main Menu]

3.0 **STARTING THE ARITHMETIC INTELLIGENT MULTIMEDIA HELP SYSTEM.**

3.1 **Login**

ARITHELP is getting started by activate the ToolBook Instructor II.
- Click anywhere in the screen to enter the system
- Click *Stop* button to quit from the system
3.2 Main Menu

There are 3 choices in the main menu which are:-

1. Learn
2. Practice
3. Help Index

Click at the button to activate it.
3.2.1 Description of Main Menu

3.2.1.1 The Learning Module
Click on the *learn* button to activate it. Once user click the main module, it will display the sub menu which are:-

- Beginner
- Intermediate

3.2.1.2 The Practice Module
Click on the *practice* button to activate it. Once user click the main module, it will display the sub menu which are:-

- Beginner
- Intermediate

3.2.1.3 The Help Module
Click on the help index button to activate it. Once user click the button, it will display the list of arithmetic terms.
PART B
1.0 THE LEARNING MODULE
By clicking the learn module, system will generate the Learn module which contain 2 sub modules:
- Beginner
- Intermediate

1.1 Beginner module
- Click the Beginner sub module to activate the module.
- Once this module is clicked, the pop-up menu will appear that ask the learner to choose the lesson mode.

Choose the lesson mode
- Addition
- Subtraction
- Multiplication
- Division
• Click on the button to activate it.
• Once the button is clicked, the learn (beginner) form will appear according to the lesson chosen. Following is the example of learn form when the addition button is clicked.

![Learn [Beginner] Interface](image)

• Wait for several minutes to see the system teach the lesson.
• Click the Show Method button to see step by step on how the system solve the problem.
• Click on the Try button to answer the question by your own. The system will detect the answer by each column entered.
  ☑ If the answer is correct, Correct statement will be displayed.
  ☒ If the answer is incorrect, Incorrect statement will appear together with a reason.
  ❖ Press enter or tab to clear the statement and try again.
• Click on the Main Menu button to go back to the main menu.
• Click on the Next button (see Standard push button) to go to the next page.
- Click *Next Question* button to go to the next question.
- Click on the *Help* button to display the step-by-step instruction on how to solve the problem. Once the button is clicked, the first step will be displayed.

![LEARN [BEGINNER]](image)

- Press me to see the next step.

- Click on the *search* button to get another information. (see *How to search an information*).
1.1.1 How to search an information

- Click on a *search* button. A search pop-up screen will appear.

- Select the title required.
- Click *Cancel* to avoid it.
- Click on the *Display* button to display the information. Once the button is clicked, the following screen will appear.

- Click on the word to view the information. The following screen will appear.
Arithmetic is the study of the numbers such as 1, 2, 3, 4,..., under various operations of which the simplest are addition, subtraction, multiplication, and division. The word arithmetic is derived from the Greek arithmos, meaning number.

- Click the **back** button to go to the previous page
- Click the button on the top to close the screen.

### 1.2 Intermediate Module

Click the Intermediate button to activate the module. Once the button is clicked, the following page will appear.
Learn [Intermediate]

Fraction having the same denominator are called like fractions. In the problem above, 2/7 and 3/7 both have the denominator 7 and are like fractions. Adding fraction is easy.

Main Menu

- Click on the search button (see Standard Push Button) to find another information (refer How to search information).
- Click on the Previous button (see Standard Push Button) to go to the previous page.
- Click on the Next button (see Standard Push Button) to go to the next page.
- Click on the Show Method button to see on how the system solves the problem.
- Click the underline word to find further information. Once the word is clicked, the following pop-up screen will be displayed.
1.2.1 How to use underline word

- Place a mouse pointer on the word
- Left click the mouse. The system will display the pop-up screen contain the required information.
- Wait for several minutes for system to show the information.
- Click anywhere on the screen to clear the screen.

2.0 THE PRACTICE MODULE

By clicking the practice module, system will generate the practice module which contain 2 sub modules:-

- Beginner
- Intermediate
2.1 Beginner Module

- Click the Beginner sub module to activate the module. Once this module is clicked, the pop-up menu will be displayed.

- Click on the button to choose the lesson mode.
- Once the button is clicked, the practice (beginner) form will appear.
Choose the answer by clicking on the one of the answer provided.

- If the answer is correct, Correct statement will appear.
- If the answer is incorrect, Incorrect statement will appear together with a reason of mistake.
  🔄 Press enter or tab or left mouse click to clear the statement

- Click on Help button (see Standard Push Button) to find some guideline on how to solve the problem.
- Click on the Search (see Standard Push Button) to get more information.

2.2 Intermediate Module

- Click the Intermediate sub module to activate the module. Once this module is clicked, the pop-up menu will be displayed.

```
Choose the lesson mode
+ Addition
- Subtraction
\times Multiplication
÷ Division
```

- Click on the button to choose the lesson mode.
- Once the button is clicked, the practice (Intermediate) form will appear.
• Choose the answer by clicking on the one of the answer provided.
  🔄 If the answer is correct, Correct statement will appear.
  🔄 If the answer is incorrect, Incorrect statement will appear together with a reason of mistake.
  ❖ Press enter or tab or left mouse click to clear the statement
• Click on Help button (see Standard Push Button) to find some guideline on how to solve the problem.
• Click on the Search (see Standard Push Button) to get more information.
3.0 THE HELP MODULE

By clicking the help module, the system will display the following form:-

- Click on the word to view the content
- Click the back button to go back to the main menu.