

### TI Apps Demonstration:

# **Area Formulas App**

For the TI-73 Explorer<sup>™</sup>, TI-83 Plus, and TI-83 Plus Silver Edition



#### Calculate the Area of a Trapezoid

This Concept Handheld Software Application reviews the definition and area formula for the rectangle, square, parallelogram, triangle, trapezoid, and circle. The development of the formulas is explained using animation and examples of the calculation of the area are given for each shape. The App has key section defined as follows:

- DEF Shows the definition of the shape
- AREA Shows the formula for the area of the shape
- WHY? Shows by animation how to develop the area formula
- EXAMPLES Shows examples of how to apply the area formula

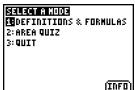
A 15-question multiple-choice guiz is included providing practice at applying the formulas. There are two levels of the quiz and high scores are saved! This App was programmed by Michael Vincent.

## l<u>:</u>Fina<u>n</u>ce… **¤⊞**AreaForm

With the handheld turned on, press [APPS]. Select AreaForm by pressing the number next to AreaForm or scrolling to highlight the number next to AreaForm. Press [ENTER].



Press any key to scroll through the opening screens.



Select 1:Definitions & Formulas. Scroll to highlight and select TRAPEZOID.

#### SELECT A SHAPE 1: RECTANGLE 2: SQUARE 3: PARALLELOGRAM 4: TRIANGLE **S**TRAPEZOID

6: CIRCLE (MENU)



AREA: TRAPEZOID H = HEIGHT B1 = BASE1 BZ = BASE Z AREA = 🗦 H 🕸 (B1+B2) squnits

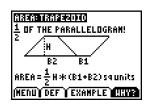
(MENU) DEF ( EXAMPLE ( UHY? )

Review the use of the Soft Keys. These are keys that appear on the bottom of the Home Screen (MENU, DEF, EXAMPLES, and WHY?). They are activated by using the top row of keys (Y=, WINDOW, ZOOM, TRACE, or GRAPH).

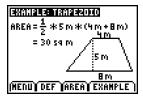
specific shape.

Select the DEFINITION screen. Press AREA to go to the AREA screen.

At any time, return to the DEF screen, or choose another option, such as EXAMPLE, to see examples of area calculations for a



Select WHY?. This menu option provides an animated explanation of a formula. In this example, the animation depicts two trapezoids building a parallelogram. This animated view explains the formula for calculating the area of a parallel-ogram based on a trapezoidal shape, whose formula was calculated earlier in the App. (See 3:SELECT-A-SHAPE.)



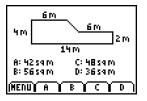
Press EXAMPLE to see one of several. examples showing how to apply the area formula.



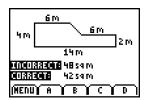
Select the QUIZ MENU, From this menu. select the shape to be tested, and in the MODE screen, select 2:AREA QUIZ.



Using the arrow keys, select a test level and press [ENTER].



Obtain the answers to the quiz by pressing the graphing keys under AD. For each shape, there are 15 questions and answers will be evaluated correct or incorrect, so students can review material for classroom quizzes and exams.



Once a quiz is completed, the score and the high score will appear on the Home Screen.