



### Activity Overview:

In this activity, you will use the construction tools in the Geometry application to make a parallelogram.

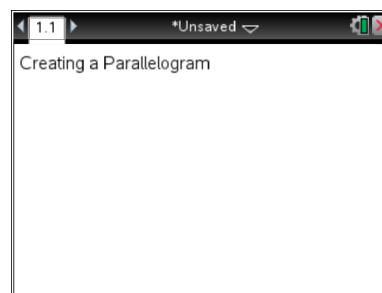
### Materials

- Technology needed (TI-Nspire™ handheld, computer software)

#### Step 1 Preparing the title page

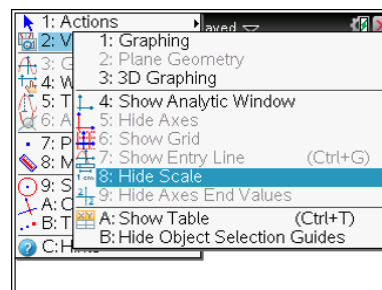
- Press **on** > **New Document** > **Add Notes**.
- Type **Creating a Parallelogram**.

**Note:** To obtain capital letters, use the **shift** key.



#### Step 2 Preparing the document

- Press **ctrl** > **doc** > **Add Geometry**.
- Press **Menu** > **Settings**. Select “Fix 1” for display digits. Tab to Graphing Angle. Select Degree. Then press **tab** to move from one field to the next. Press **on** to uncheck all 4 boxes. Tab to OK and press **on** or **enter**.
- Press **Menu** > **View** > **Hide Scale**.



#### Step 3 Marking 3 points

- Press **Menu** > **Points & Lines** > **Point**.
- Move the cursor to the desired location and press **enter** to mark a point. Immediately press **shift** **A** to label this point as A. (See the figure to the right.)
- Move the cursor to the desired location and press **enter** to mark a point. Immediately press **shift** **B** to label this point as B.
- Move the cursor to the desired location and press **enter** to mark a point. Immediately press **shift** **C** to label this point as C.
- Press **esc** to exit the tool.



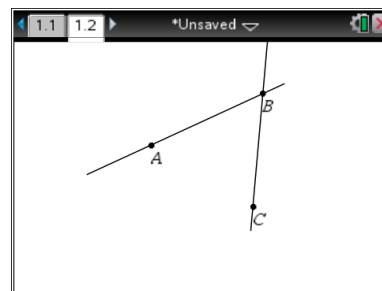


# Creating a Parallelogram

## MATH NSPIRED

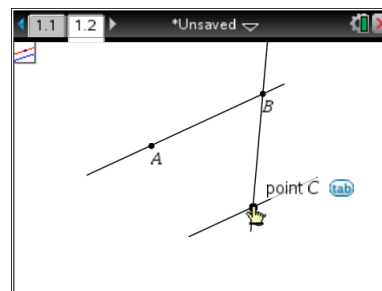
### Step 4 Making 3 lines

1. Press **Menu > Points & Lines > Line** and move the cursor until you see the at point A. Press **enter**.
2. Move the cursor until you see the at point B. Press **enter**.
3. With the at point B, press **enter** again. Then move the cursor to point C. When you see the at point C, press **enter**.
4. Press **esc** to exit the tool.



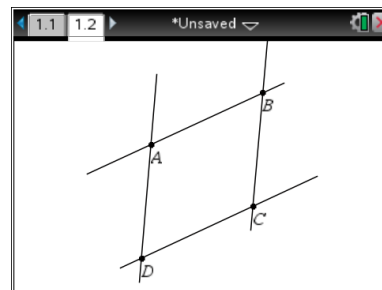
### Step 5 Drawing parallel lines

1. Press **Menu > Construction > Parallel**.
2. Move the cursor toward line AB until the line becomes bold. When you see the and the word *line*, press **enter**.
3. Move the cursor toward point C until you see the and the label *point C*. Press **enter**.
4. The **Parallel** tool is still active, so move the cursor toward line BC until the line becomes bold and you see the and the word *line*. Press **enter**.
5. Move the cursor to point A and press **enter**.
6. Press **esc** to exit the **Parallel** tool.



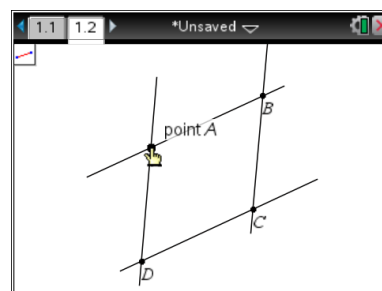
### Step 6 Marking the fourth vertex

1. Press **Menu > Points & Lines > Intersection Point(s)**.
2. Move the arrow until you see *line* for the line through A (but not line AB). Press **enter**.
3. Move the arrow until you see *line* for the line through C (but not line BC). Press **enter**.
4. Press **shift D** to label the intersection point.
5. Press **esc** to exit.



### Step 7 Drawing the parallelogram

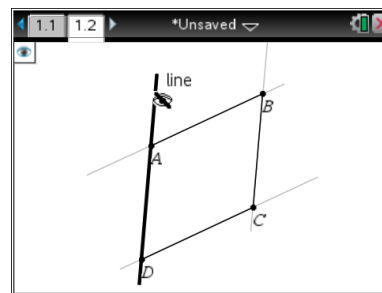
1. Select **Menu > Shapes > Polygon**.
2. Move to point A and press
3. Move to point B and press
4. Move to point C and press
5. Move to point D and press
6. Move back to point A and press
7. Press **esc**.





### Step 8 Hiding the lines

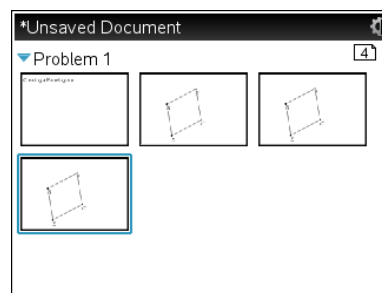
1. Press **Menu > Actions > Hide/Show**.
2. Move the arrow to line  $AB$  – be sure to be outside the parallelogram – and press **enter**.
3. Repeat to hide the remaining lines (outside the parallelogram).
4. Press **esc** to exit.



### Step 9 Cloning the page

Copy the same figure on pages 1.2, 1.3, and 1.4 so that if you make a mistake, or a page gets too crowded with data, you can go to a new clean figure.

1. Press **ctrl** **▲**, which shows all the pages as thumbnails.
2. Press **ctrl** **C** to copy the page and **ctrl** **V** to paste the page.
3. Press **ctrl** **V** again to get another copy.
4. Press the left arrow, **◀**, twice to get back to the thumbnail of page 1.2.
5. Press **enter** to return to page 1.2.



### Step 10 Saving the document.

1. Press **doc** **>** **File > Save As**.
2. Save the document in an appropriate folder. Use the file name of "Creating\_a\_Parallelogram." Tab to OK and press **enter** or **enter**.

