## Special Segments and

Points of Concurrency in a Triangle Web-Quest

You will use the Internet (and your Geometry Textbook) to learn about the 5 special segments in a triangle and how those special segments are used to find the different types of points of concurrency.


This Web-Quest is Due $\qquad$ at the beginning of class. If you have any questions please ask Mr. Reed for assistance.

Click here to continue:

To do this web-quest please set up a blank sheet of notebook paper with a chart in the following manner and with the following headings

## Special Segments in a Triangle

| Special Segment <br> Name | Definition | Special Attributes <br> in the Triangle |
| :--- | :--- | :---: |
| 1. Mid-Segment | A Segment that connects the <br> midpoints of two sides of a triangle | A mid-segment is parallel <br> to the third side of the <br> triangle and it is half the <br> length of the third side of <br> the triangle |
| 2. |  |  |
| 3. |  |  |
| 4. |  |  |
| 5. |  |  |

Web-Sites Used to retrieve and verify the information above:
1.
2.
3.
4.
5.

You will find information on the rest of the Special Segments by doing a "Google" Search and typing in the phrase "Special Segments in a triangle"

Remember every link in the Google search may not be useful to you. Scan the link and if you do not see information that will help you go back to the Google search page and go to the next link.

Use the links about special segments to fill in your chart you have made.
Be sure to write down the links that you used to fill in the chart. You must use at least three different sources to retrieve and verify your data.

Click here to continue:

On the back of the notebook paper with a chart above please create another chart in the following manner and with the following headings

## Points of Concurrency

First explain how a Point of Concurrency is different from a Point of Intersection in a triangle. $\qquad$

| Point of <br> Concurrency <br> Name | What Special Segments in a <br> Triangle are used to from the Point <br> of Concurrency | Special Properties the <br> Point of Concurrency has <br> in the Triangle |
| :--- | :---: | :---: |
| 1. |  |  |
| 2. |  |  |
| 3. |  |  |
| 4. |  |  |

Web-Sites Used to retrieve and verify the information above:
1.
2.
3.
4.
5.

You will find information on the rest of the Points of Concurrency by doing a "Google" Search and typing in the phrase "Special Points of Concurrency in a Triangle"

Remember every link in the Google search may not be useful to you. Scan the link and if you do not see information that will help you go back to the Google search page and go to the next link.

Use the links about special segments to fill in your chart you have made.
Be sure to write down the links that you used to fill in the chart. You must use at least three different sources to retrieve and verify your data. You may want to go back to some of the sources that you used to fill in the first chart to help you with this chart.

Click here to continue:

On a new sheet of notebook paper create another chart in the following manner and with the following headings. On the back of that sheet of paper or on different sheets of paper please make drawings and/or constructions to show your findings that you used to fill in the chart.

# Points of Concurrency <br> In Different Types of Triangles 

| Point of <br> Concurrency <br> Name | Where is the Point of Concurrency <br> Located in the type of triangle below: |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Acute | Obtuse | Right | Isosceles | Equilateral/ <br> Equiangular |
| 1. |  |  |  |  |  |
| 2. |  |  |  |  |  |
| 3. |  |  |  |  |  |
| 4. |  |  |  |  |  |

Which Point of Concurrency(s) can be used to determine the type of Triangle? Explain your answer. $\qquad$
$\qquad$

Web-Sites Used to retrieve and verify the information above:
1.
2.
3.
4.
5.

You can complete the chart above by using your Compass and Straight edge and drawing and construction different Points of Concurrency on the different types of triangles or you can find information on the rest of the special segments by doing a "Google" Search and typing in the phrases
"Acute Triangles and Points of Concurrency"
"Right Triangles and Points of Concurrency"
"Obtuse Triangles and Points of Concurrency"
"Isosceles Triangles and Points of Concurrency"
"Equilateral Triangles and Points of Concurrency"

Some other sources you might want to use are:
http://www.geom.uiuc.edu/~demo5337/Group2/trianglecenters.html
http://www.hobart.k12.in.us/jstorey/geometry/cindyex.html
http://www.teachers.net/lessons/posts/1435.html

Remember every link in the Google search may not be useful to you. Scan the link and if you do not see information that will help you go back to the Google search page and go to the next link.

Use the links about special segments to fill in your chart you have made.

Be sure to write down the links that you used to fill in the chart. You must use at least three different sources to retrieve and verify your data. You may want to go back to some of the sources that you used to fill in the first chart to help you with this chart.

Click here to continue:

## Scoring of this Web-Quest

This web-Quest will be worth 60 points broken down as follows:

12 Points for the Special Segments Grid
8 Points Grid Complete
4 Points Sources
12 Points for the Points of Concurrency Grid
8 Points Grid Complete
4 Points Sources
24 Points for the Points of Concurrency in Different
Triangles Grid
10 Points Grid Complete
4 Points Sources
10 Points Drawing to Substantiate Grid Findings
12 Points for Reflections Worksheet that will be handed to you when you turn in the web-quest

On any day you will lose 2 points for every time you are on a web-site that is not part of this web-quest or are off task and messing around.

