

Triangle Centres

Oct 11/2011

The **centroid** is the intersection point of the **medians**.

The **orthocentre** is the intersection point of the **altitudes**.

The **circumcentre** is the intersection point of the **perpendicular bisectors**.

The **incentre** is the intersection point of the **angle bisectors**. *** will not be evaluated ***

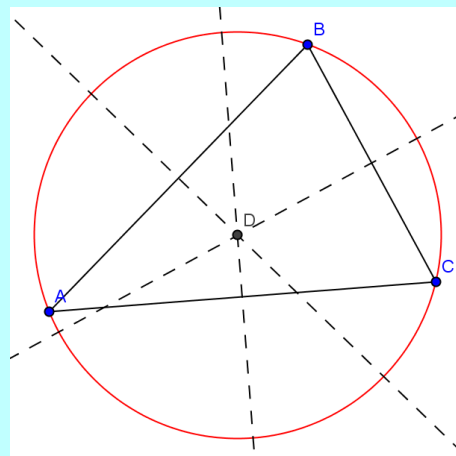
Mar 6-9:31 PM

The **centroid** is also known as the centre of mass of the triangle. You could balance the triangle at this point.

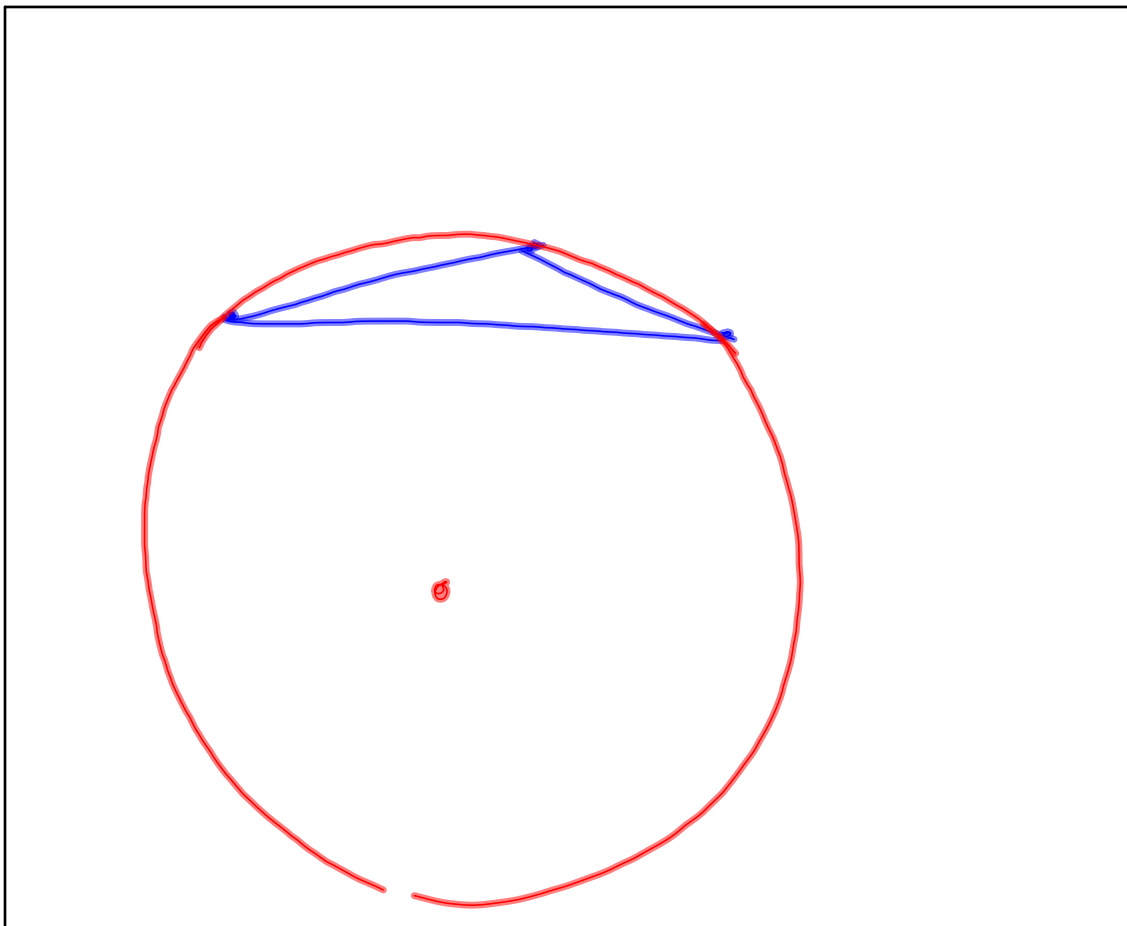
The **circumcentre** is the point that is equidistant from all 3 vertices of the triangle.

or

It the centre of the circle that passes through each vertex of the triangle.



Mar 6-9:41 PM



Oct 11-11:16 AM

✓ Given triangle FGH with vertices at $F(-2,7)$, $G(10,1)$, and $H(1,10)$:

- List the steps required to determine the coordinates of the circumcentre, and then find it. (draw a sketch first!)
- List the steps required to determine the coordinates of the centroid. (draw a sketch... maybe a new one)
- List the steps required to determine the coordinates of the orthocentre.

Mar 6-9:50 PM

Assigned Work:

p.120-121 # 6, 8, 9, 10

Triangle ABC has vertices A(3, 4), B(-5, 2) and C(1, -4).

Find the coordinates of the

a) circumcentre. Answer: $(-2/5, 3/5)$

b) orthocentre. Answer: $(-1/5, 4/5)$

c) centre of mass (centroid). Answer: $(-1/3, 2/3)$

Test will be Friday:

Review:

p124-125 #1, 2, 3, 6, 7, 8, 9, 10, 11, 13,
15, 16, 18, 20a, 21, 22, 23

Feb 28-12:00 PM