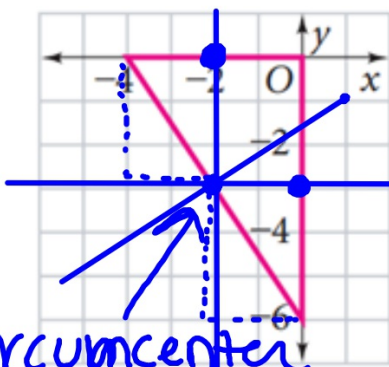


1. Circumcenter: $(-2, -3)$

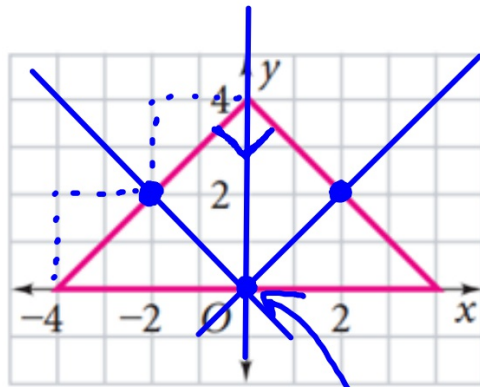


Circumcenter

$$m = -\frac{3}{2}$$

$$\perp m = \frac{2}{3}$$

2. Circumcenter: $(0, 0)$



Circumcenter