## Honors Geometry Notes Section 7.8 <br> Law of Sines and Law of Cosines

Law of Sines:

Law of Cosines: $\qquad$


EXAMPLE 1 Use the information in the diagram to determine how much closer you live to the music store than your friend does.


EXAMPLE 2 In $\triangle A B C, a=11 \mathrm{~cm}, b=17 \mathrm{~cm}$ and $c=19 \mathrm{~cm}$.
Find $m \subset C$.


EXAMPLE 3 In $\triangle D E E, d=9$ inches, $e=12$ inches, and $m \angle F=46^{\circ}$.
Find f to the nearest hundreth.

