

Word problem review for Trig Test. Draw a diagram and use your calculator.

1) You are on the observation deck of the Empire State Building looking at the Chrysler Building. When you turn about 145° you see the Statue of Liberty. You know that the Chrysler Building and the Empire State Building are about 0.6 miles apart and that the Chrysler Building is about 5.7 miles from the Statue of Liberty. Find the approximate distance between the Empire State Building and the Statue of Liberty?

2) Two motorists start at the same point and travel in two straight courses. The courses diverge at an angle of 95° . If one motorist travels 200 miles and the other travels 260 miles, how far apart are they?

3) Three sides of a triangle are 11m, 17m and 19m.
Find the measure of the smallest angle.
Then find the area of this triangle.

Without a Calculator:

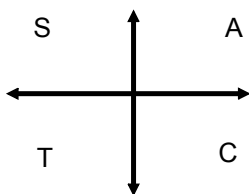
Positive and Negative
Coterminal Angles

Converting
Radians \longleftrightarrow Degrees

Memorized Trig Values of
 $30^\circ, 45^\circ, 60^\circ$

$$\frac{\pi}{6} \quad \frac{\pi}{4} \quad \frac{\pi}{3}$$

Know Trig Values all the
way around the unit circle.



Quadrants

Rt Triangle Trig
Soh, Cah, Toa

With a Calculator:

Word problems - from WS

Rt Triangle Trig:

\longrightarrow SOH CAH TOA

Law of Sines

$$\longrightarrow \frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$$

Law of Cosines

(use with SSS and SAS)

$$\longrightarrow a^2 = b^2 + c^2 - 2 \cdot b \cdot c \cdot \cos A$$

Area of Triangles

$$\longrightarrow \text{Area} = \frac{a \cdot b \cdot \sin C}{2}$$