Connection: Sine Values and Electromagnetic Wave Forms
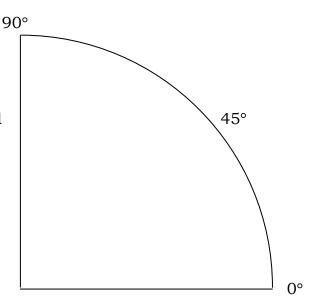
Dr. Stan Hartzler   Archer City High School

1. Draw a quarter-circle on a large sheer of paper, with radius one meter.

2. Mark angles 0°-90°.

3. Make a chart of angle measures 0°-90°.

4. Measure vertical distance from each angle mark to horizontal segment. Record in chart as meters.

5. Graph as shown below table.

6. Note the shape. Show copies and extensions.

Angle	1°	2°	...	30°	31°	...	53°	54°	55°	...
Distance	.017	.349	...	.500	.515	...	.799	.809	.819	...

This shape is the shape of light waves, radio waves, x-rays, TV waves, etc.

Why? That question has attracted the attention of philosophers.

Let students experience that question.