

## Indicators

### Objective:

#### 2.01 Draw objects to scale and use scale drawings to solve problems.

Vocabulary and Resources		
proportion	similarity	enlargement
ratio	dilation	reduction
equivalence	scale factor	projection point

- A.** Using a North Carolina State Transportation Map, determine each of the following:
- the greatest East-West distance across the state
  - the greatest North-South distance across the state
  - an estimate of the area of the county that you live in
  - the time it would take a military aircraft flying at 600 km/hr to fly from Havelock to Fayetteville

- B.** Carlos and Jennie are building scale models of different vehicles for a class project. They just completed a 4 inch long model of a car that is 15 feet in length. If they use the same scale, what will be the length of a scale model of a truck that is 31.5 feet long?

- C.** When Jermaine designed his dream house, he used a scale of  $\frac{1}{4}$  inch = 2 feet. He plans to purchase carpet for the actual living room with dimensions  $1\frac{1}{4}$  inches by  $1\frac{1}{2}$  inches in his model. The carpet sells for \$5.95 per square foot. How much will it cost Jermaine to carpet his living room?

**D.** Your Social Studies teacher has asked you to draw a map of North Carolina. You decide that the scale you will use is 1 inch = 30 miles. The actual distance from Charlotte to Raleigh is 144 miles. How far apart should the cities be on your map?