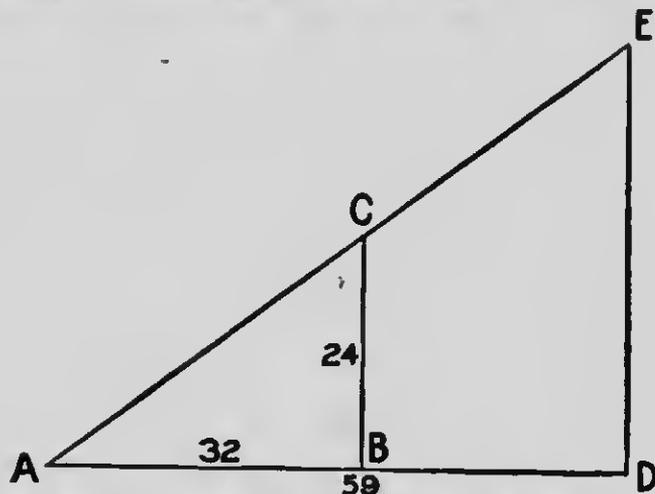


CHAPTER XX.

Similar Triangles. (Continued).

1. In the annexed figure the triangles **ABC**, **ADE** are similar. Suppose the values of the lines are



AD = 59, **AB** = 32, **BC** = 24, and that **DE** is unknown. The property of similar triangles gives

$$\frac{DE}{59} = \frac{24}{32}$$

$$DE = \frac{24}{32} \times 59 = 44\frac{1}{4}.$$

2. If level ground can be found extending out from the base of a tree, or other vertical object, its height may be found as follows:

Let two rods, **AB** and **CD**, be placed upright in the ground, at such distance apart that the eye sees the tops (**B** and **D**) of the rods and the top (**F**) of the tree in the same straight line.

The heights of the rods being measured, their difference **DG** is known. Let also the lengths **AC** (*i.e.*, **BG**) and **CE** (*i.e.*, **GH**) be measured.