

Answer on Question #84527 – Math – Trigonometry

Question

A person 55-ft tall casts a shadow 1111-ft long. At the same time, a nearby tree casts a shadow 3131-ft long. Find the height of the tree.

Solution

Find the ratio of length shadow to the height object:

$$k = 1111 / 55 \rightarrow k = 20.2$$

Find the height of the tree:

$$h = 3131 / 20.2 \rightarrow h = 155$$

Answer: 155-ft.