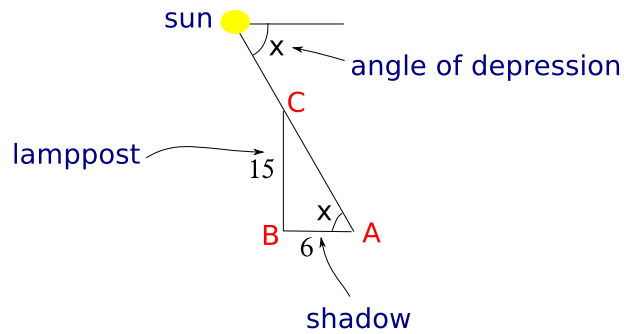**Task.** At a certain time, the shadow of a lamppost is 6 ft and the actual height of the lamppost is 15 ft. What is the angle of depression of the sun? Round the angle to the nearest degree.

**Solution.** Consider the following figure



The angle $x$ is called the angle of depression. It follows from the right triangle $ABC$ that
$$\tan x = \frac{BC}{AB} = \frac{15}{6} = 2.5$$

Hence
$$x = \arctan(2.5) \approx 68.2° \approx 68°.$$