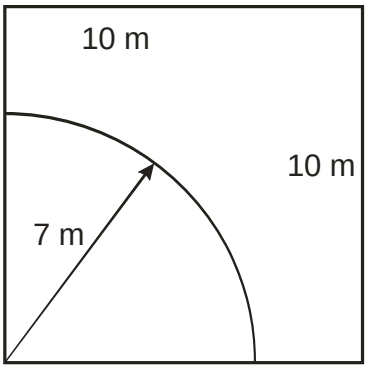
A horse is tied with a rope of length 7m at one corner of the square field having side equal to 10m.find the minimum area of the square field that is left ungrazed.

Solution:



The square field that is left ungrazed will be as a difference between square of quadrate and square of a circle quarter with R=7:

$$S\ ungrazed = S\ quadrate - {}^{1}/_{4}\, S\ circle = 10^2 - \frac{1}{4} * 3.142 * 7^2 = 61.51\ m^2$$

Answer: 61.51 m^2