

3. Trouvez la surface d'un segment, de cercle, dont la corde, qui a 7 pouces, soutend un angle droit au centre.

Solution : 7 est l'hypoténuse d'un triangle rectangle isocèle : les autres côtés de ce triangle sont deux rayons du cercle.

$$7^2 = 49.$$

$$49 \div 2 = 24.5, \text{ le carré du rayon.}$$

$$\text{La racine carrée de } 24.5 = 4.95 \text{ —, le rayon.}$$

$$(24.5 \text{ le carré du rayon} \times 3.1416) \div 4 = 19.2423, \text{ la surface d'un secteur de } 90^\circ.$$

$$(4.95 \times 4.95) \div 2 = 12.25, \text{ surface du triangle qui avec le segment dont on cherche la surface forme le secteur de } 90^\circ.$$

$$19.2423 - 12.25 = 6.9923. \text{ Rép.}$$

4. Dans certaines parties de l'Angleterre il tombe 30 pouce de pluie par année, combien cela fait-il de gallons par acre?

Solution : 30 pouces de pluie par année cela veut dire que si l'eau tombée dans une année restait sur le sol sans écoulement et sans évaporation il y aurait une profondeur de 30 pouces.

Mettons $6\frac{1}{4}$ gallons par pied cube.

Dans 1 acre il y a 4840 verges ou 43560 pieds.

$$30 \text{ pouces} = 2\frac{1}{2} \text{ pieds.}$$

$$43560 \times 2\frac{1}{2} = 108900 \text{ pieds cubes, volume de l'eau qui tombe sur 1 acre.}$$

$$108900 \times 6\frac{1}{4} = 680625 \text{ gallons. R.p.}$$

Langue anglaise

THE RESCUE OF THE HENS.

PART I

One afternoon of a very cold winter day, it was noticed at the farmhouse that the hens had not come home to roost, though it was past their usual time. The snow was lying deep outside in the farm yard, and no one felt inclined to go out and look for them. While they were all wondering what could have happened to the belated fowls, they were surprised to see Ben the house dog, come trotting into the kitchen with one of them in his mouth. It seemed quite dead; but he laid it gently down before the fire, trotted out again, and soon returned with another, which looked as lifeless as the first.

PART II

This went on till they were all brought in, and there was quite a large collection of dead-looking hens lying on the hearth. One by one, however,