

2. L'eau contenue dans un puits de 1.2 verge de diamètre s'élève à 6.8 verges. A quelle hauteur s'élèverait-elle dans un bassin de 3.4 verges de long sur 2.6 verges de large ?

$$1.2 \times 1.2 \times 0.7854 \times 6.8 = \text{le volume de l'eau dans le puits.}$$

$$3.4 \times 2.6 = \text{la surface du fond du bassin.}$$

$$\frac{1.2 \times 1.2 \times 0.7854 \times 6.8}{3.4 \times 2.6} = \frac{1.2 \times 1.2 \times 0.7854}{1.3} = 0.87 \text{ de verge. Rep.}$$

3. Quel est le poids d'un tuyau en plomb de 24 pieds de long, de 2 pouces de diamètre intérieur et de  $\frac{1}{4}$  de pouce d'épaisseur, si le pied cube de plomb pèse 11,400 onces ?

$$\text{Solution: } 2 + \frac{1}{4} + \frac{1}{4} = 2\frac{1}{2} \text{ le diamètre extérieur.}$$

$$(2\frac{1}{2} + 2)(2\frac{1}{2} - 2) = 4\frac{1}{2} \times \frac{1}{2} = 4.5 \times 0.5 = 2.25 \text{ la différence des carrés des deux diamètres.}$$

$$2.25 \times 0.7854 = 1.76715, \text{ pouces carrés, surface de l'anneau.}$$

$$\frac{1.76715 \times 24 \times 12 \times 11400}{1728 \times 16} = \frac{0.58905 \times 1425}{4} = \frac{839.39625}{4} = 209.84906\frac{1}{4} \text{ livres. Rép.}$$

## LANGUE ANGLAISE

### Dictation

#### BRAVE WOMEN

*Am-bus-cade*, place of concealment, ambush.

*Cov'-ert*, hiding-place.

*De-coy'*, tempt, entice.

*In-ev'-i-ta-ble*, unavoidable; certain.

*In'-vest'-ed*, besieged; surrounded by an enemy.

*Pi-o-neers'*, first settlers, who prepare the way for others.

*Ren'-e-gade*, runaway; deserter.

Upon the banks of a river in the State of Kentucky, there was once a fort to which the settlers frequently resorted as a place of refuge from the savages. Its gallant defence by a handful of pioneers against the allied Indians of Ohio, led by two renegade white men, was one of the most desperate affairs in the Indian wars of the West. The pioneers had not the slightest idea of their approach, when, in a moment a thousand rifles gleamed in the corn-fields one summer night! That very evening the garrison had chanced to gather under arms, to march to the relief of another station that was similarly invested. They were therefore unexpectedly prepared for the attack.

The Indians saw at a glance that the moment was not favorable to them; and having failed to surprise the garrison, they attempted to

decoy them from the fastness by presenting themselves in small parties before it. The whites were too wise to risk a battle till help should arrive, so they resolved to stand a siege.

But the fort, which was merely a collection of log cabins, arranged in a hollow square, was unhappily not supplied with water; and the besieged were aware that the enemy had placed his real force in ambush near a neighboring spring. The women of the station determined to supply it with water from this very spring.

But how? Woman's wit never devised a bolder plan, and woman's courage never carried one more dangerous into successful execution.

These brave women, being in the habit of fetching the water every morning, saw that if armed men were now to take that duty upon themselves, the Indians would perceive that their ambuscade had been discovered, and would instantly commence the assault.

Morning came, and the random shots of the decoy-party were returned with a quick fire from one side of the fort, while the women issued from the other, as if they expected no enemy in that quarter.

Could anything be more appalling than the task before them! But they shrink not from it; they move carelessly from the gate; they advance with composure in a body to the spring;