

# Ihumanea Pāngarau He Papa Omaoma MĀ TE KAI AKO

## Kia Mōhio te Ākonga ki:

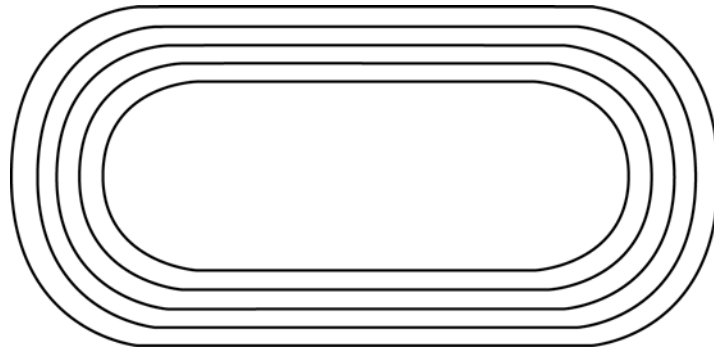
- te tātai paenga porowhita, tapawhā hāngai hoki
- te tuhi hoahoa āwhata

## Kupu Matua:

hoahoa āwhata, porowhita haurua, haupoi, paenga, pūtoro, whitianga

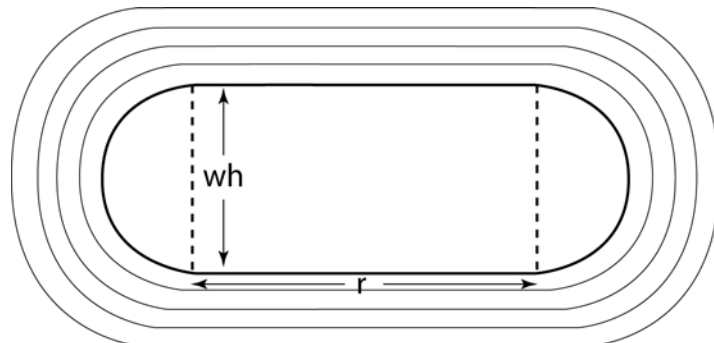
## Hei Mahi:

He hoahoa tēnei o tētahi ara omaoma. He tapawhā hāngai te āhua, me ētahi porowhita haurua ki ia pito:



Tuhia he hoahoa āwhata o tētahi ara omaoma kia pēnei anō te āhua. E tika ana kia 400m te roa huri amio i te ara roto. E hiahiatia ana te wāhi o roto i te ara omaoma hei papa tākaro haupoi. He tapawhā hāngai te papa tākaro haupoi, e 91.4 mita te roa, e 55 mita te whānui.

Ka wāwāhia te ara omaoma ki te tapawhā hāngai me ngā porowhita haurua e rua:



He rite te paenga o te ara omaoma nei ki te tapeke o ngā tapa roa e rua o te tapawhā hāngai, me te paenga o ngā porowhita haurua e rua (he rite tēnei ki te paenga o te porowhita kotahi). Ka taea tētahi whārite te tuhi hei tātai i te paenga o te ara omaoma:

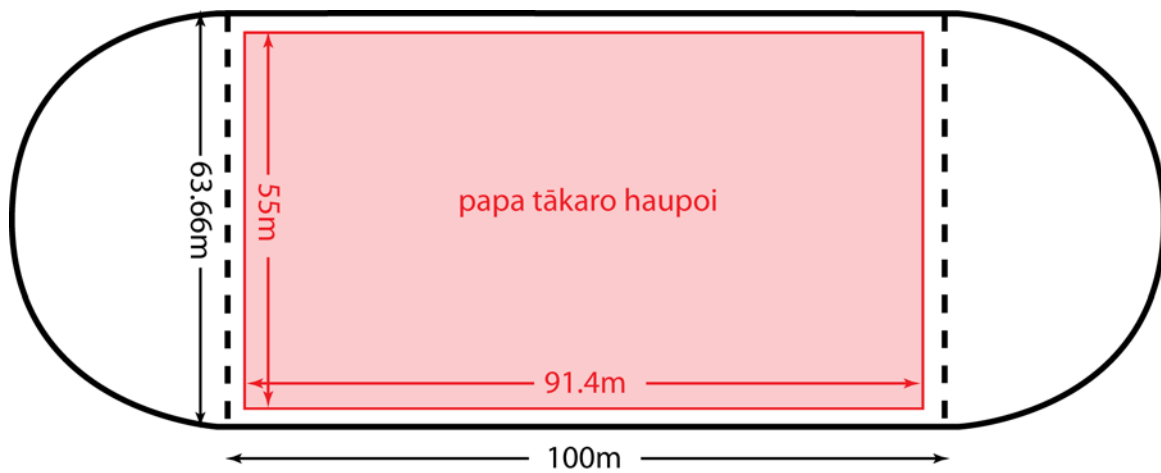
$$P = 2r + \pi wh$$

$P = \text{paenga}$ ,  $r = \text{te roa o te tapawhā hāngai}$ ,  $wh = \text{te whānui o te tapawhā hāngai}$  (he ōrite tēnei ki te whitianga o te porowhita haurua)

E mōhitia ana ko te 400m te paenga o te papa omaoma. Mēnā ko te 100m ngā tapa roa o te tapawhā hāngai, ka taea roa o te papa tākaro haupoi te whakauru ki roto i te ara omaoma. Nō reira, hei tātai i te whānui:

$$\begin{aligned} P &= 2r + \pi wh \\ 400 &= 2 \times 100 + \pi wh \\ 400 - 200 &= \pi wh \\ 200 &= \pi wh \\ 200/\pi &= wh \\ 63.66 &= wh \end{aligned}$$

E pai ana te 63.66mita hei whānui mō te tapawhā hāngai, nā te mea ka taea te whānui o te papa tākaro haupoi te whakauru ki roto anō i te ara omaoma. Koia ngā inenga hei hoahoa āwhata:



āwhata: 1cm = 100m