

## Hei mahi whakamahere anake

**Paerewa Paetae Pāngarau 1.4B:** Te whakamahi tikanga taurangi rārangi hei whakaoti rapanga.

**Te Kaupapa Ako:** Pāngarau

**Te Ingoa o te Rauemi:** Te Utu Tēkehi

**Whiwhinga:** 3

### Tohutohu mā te Ākonga

#### Te Horopaki

E toru ngā umanga tēkehi i te tāone nui o Tauranga, he rerekē ā rātou utu. Ko tāu mahi i tēnei ngohe aromatawai, he whakatairite i ngā utu o ēnei umanga e toru.

#### Hei mahi

E toru ngā umanga tēkehi i te tāone nui o Tauranga, he rerekē ngā utu:

Te Umanga Tēkehi o Te Whanga,

Te Umanga Tēkehi o Te Tahuna,

Te Umanga Tēkehi o Te Maunga.

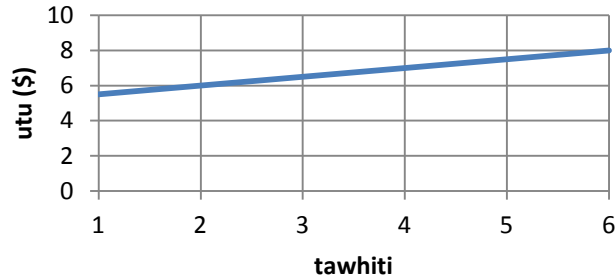
E tāpiri nei te whārangi e whakaatu ana i ngā utu o ēnei umanga e toru, me ngā tawhiti, mai i te papa waka rererangi o Tauranga ki ētahi wāhi i te tāone.

- 1 Whakaaturia ngā utu o ngā umanga e toru ki te momo whakaaturanga kotahi, pērā i te whārite (kia kotahi te whārite mā ia umanga), te kauwhata rānei. Kia ōrite ngā taurangi me ngā āwhata o ia whakaaturanga.
- 2 Whiriwhiria te umanga he iti rawa te utu mō te haere ki ētahi o ngā wāhi e rua o te tāone.
- 3 Whiriwhiria ngā tawhiti o ngā haerenga, ko te Umanga Tēkehi o Te Tahuna te umanga he iti rawa te utu.
- 4 E hiahia ana ngā kaiwhakahaere o te Umanga Tēkehi o Te Whanga kia riro ko rātou te umanga he iti rawa te utu, ahakoa te tawhiti o te haere. Me pēhea te huri i ngā utu a tēnei umanga, e tutuki ai tēnei hiahia o rātou. Whiriwhiria ētahi tauira o ngā huringa utu.
- 5 Whakaaturia ō whiriwhiringa katoa, me ngā whakamārama i te taha.

## Taunakitanga: Pāngarau 91029 (ā-roto) 1.4B Te Utu Tēkehi

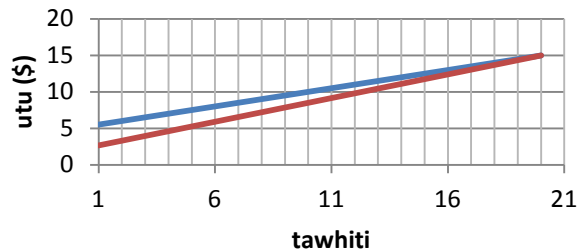
Taunakitanga – mō te Paetae	Taunakitanga – mō te Kaiaka	Taunakitanga – mō te Kairangi
<p>E tutuki ai te taumata o te paetae, ka whakamahi tikanga taurangi rārangi te ākongā hei whakaoti i ētahi wāhanga o tēnei rapanga. Arā:</p> <ul style="list-style-type: none"> <li>te whiriwhiri me te whakamahi i ētahi tikanga whānui hei whakaoti rapanga;</li> <li>te whakaatu mōhiotanga ki ngā huatau taurangi, me ngā kupu e hāngai ana;</li> </ul> <p>te whakamārama i ngā otinga mēnā kotahi e rua rānei ngā mahi o roto i te tikanga i whakamahia.</p> <p>Kia toru nui ake rānei ngā tikanga taurangi rārangi hei whakaatu mā te ākongā, pērā i te tūtohi, te whārite, te whārite tukutahi, me te kauwhata rārangi. Hei tauira:</p> <p><b>Te whakauru uara ki te whārite</b>                      Te utu o Te Whanga ki te pokapū o te tāone  <math>= 0.5 \times 17 + 5 = \\$13.50</math></p> <p><b>Te tuhi whārite</b>                      Te Whanga: <math>U = 0.5t + 5</math> (<math>U =</math> utu, <math>t =</math> tawhiti)</p> <p><b>Te tuhi kauwhata</b>                      Te kauwhata o Te Whanga:</p>	<p>E tutuki ai te taumata o te kaiaka, ka whakamahi tikanga taurangi rārangi te ākongā hei whakaoti i tēnei ngohe, me te whai wāhi mai o te whakaaro tūhonohono. Arā:</p> <ul style="list-style-type: none"> <li>te whiriwhiri me te whakatutuki i te raupapatanga mahi arorau e hāngai ana;</li> <li>te tūhono i ētahi huatau rerekē, i ētahi whakaahuahanga rerekē rānei;</li> <li>te whakaatu māramatanga ki ngā huatau e hāngai ana;</li> <li>te hanga me te whakamahi tauira;</li> </ul> <p>me te tūhono i ngā otinga ki te horopaki, te whakamahi rānei i ngā kīanga pāngarau e hāngai ana hei whakawhitiwhiti whakaaro.</p> <p><b>Hei tauira:</b>                      Ka whakaoti i ngā whārite tukutahi e hāngai ana ki Te Whanga me Te Tahuna me te whakamahi anō i te otinga hei whiriwhiri i ngā utu māmā mō ētahi tawhiti rerekē. Mā konei e kitea ai te mārama o te ākongā ki ngā huatau me tana āhei ki te whakamārama i te raupapatanga mahi arorau.</p> <p>Ina whakaotia ngā whārite tukutahi <math>U = 0.5t + 5</math> me te <math>U = 0.65t + 2</math>, ka hua ko te 20km te tawhiti he ōrite te utu a ēnei umanga e rua. He iti ake te utu pūmau o Te Tahuna,</p>	<p>E tutuki ai te taumata o te kairangi, ka whakamahi tikanga taurangi rārangi te ākongā hei whakaoti i tēnei ngohe, me te whai wāhi mai o te whakaaro waitara whānui. Arā:</p> <ul style="list-style-type: none"> <li>te waihanga rautaki hei tūhura, hei whakaoti rānei i tēnei ngohe</li> <li>te tautohu i ngā huatau e hāngai ana ki te horopaki;</li> <li>te whakaputa i tētahi raupapatanga whakaaro arorau, i tētahi hāponotanga rānei;</li> <li>te hanga whakawhānuitanga;</li> </ul> <p>me te whakamahi kīanga pāngarau tika, te whakawhitiwhiti rānei i te aroā pāngarau.</p> <p><b>Hei tauira o te whakaputa raupapatanga whakaaro arorau, me te whakawhitiwhiti i te aroā pāngarau:</b>                      Ki tua ake i te 40km, ka rahi ake ngā utu o Te Whanga i ngā utu o Te Maunga (<math>0.5 \times 41 + 5 = 25.50</math>). Nō reira ki tua ake i te 40km me huri ngā utu o Te Whanga ki te utu pūmau noa iho, ki raro hoki i te \$25 (kia māmā ake i ngā utu o Te Maunga). Hei tauira, ko te \$24 mō ngā haerenga ki tua atu i te 40km.</p> <p>Mō ngā haerenga ki raro iho i te 20km, me huri ngā utu o Te Whanga kia māmā ake i ngā utu o Te Tahuna. He nui ake ngā utu o</p>

### Te Umanga Tēkehi o Te Whanga



Te whakaoti whārite tukutahi, tōrite, kauwhata rānei

### Te Whanga me Te Tāhuna



He ōrite te utu o Te Whanga me Te Tahuna mēnā e 20km te tawhiti o te haere.

engari he poupou ake te rōnaki o te kauwhata, nō reira he māmā ake ō rātou utu mō ngā tawhiti ki raro iho i te 20km. Mēnā he tawhiti ake i te 20km he māmā ake te utu o Te Whanga (tae ake ki ngā haerenga e \$25 nui ake rānei te utu, nā te mea ki konā, he māmā ake ngā utu o Te Maunga.

Hei tauira, mō te haerenga ki te wāpu mai i te papa taunga wakarererangi:

$$\text{Te Whanga} = 0.5 \times 24 + 5 = \$17$$

$$\text{Te Tahuna} = 0.65 \times 24 + 2 = \$17.60$$

$$\text{Te Maunga} = \$25$$

He māmā ake te utu o Te Whanga.

Te Whanga nā te rahi o tō rātou utu pūmau (e \$5), ahakoa he iti ake te utu ā-manomita. Mēnā ka huri ngā utu, kia iti ake te utu pūmau, ā, kia ōrite te utu ā-manomita, kātahi ka māmā ake ngā utu o Te Whanga. Hei tauira, kia huri ngā utu o Te Whanga ki:

$$U = 0.65t + 1.5$$

Arā ka riro ko te \$1.50 te utu pūmau, ā, he ōrite te utu ā-manomita ki tō Te Tahuna.