

Growing Avocados

Activity One

Dan and Rochelle have planted 12 small avocado trees on their lifestyle block. In a good season, they expect to get 150 avocados from each fully grown tree.



1.
 - a. How many avocados could Dan and Rochelle expect to get off their 12 fully grown trees in a good season? Explain how you worked out your answer.
 - b. How many avocados could they expect to get from:
 - i. 24 trees?
 - ii. 48 trees?
 - c. How many trees would they need to produce about 6 000 avocados in a good season?

2. In a bad season, the production drops to $\frac{1}{3}$ of the number of avocados expected in a good season.

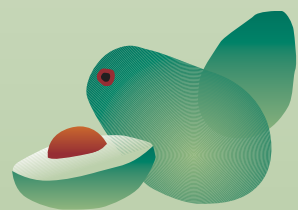
How many trees would Dan and Rochelle need to produce about 6 000 avocados in a bad season?

3. Avocado growers in Dan and Rochelle's district usually find they have a good season followed by a bad season.



So we expect 150 (good season) $+ 50$ (bad season) $= 200$ avocados for 1 tree over 2 years. That's an average of ...

Find a short cut that describes the average number of avocados a grower might get in a season, for any number of trees.

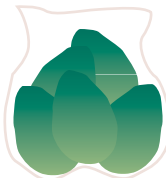


Activity Two

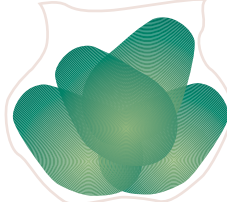
1. Dan and Rochelle's neighbour Brett is already growing avocados. He sells his avocados in bags like these:



6 small
avocados
for \$1.20



5 medium
avocados
for \$2.20



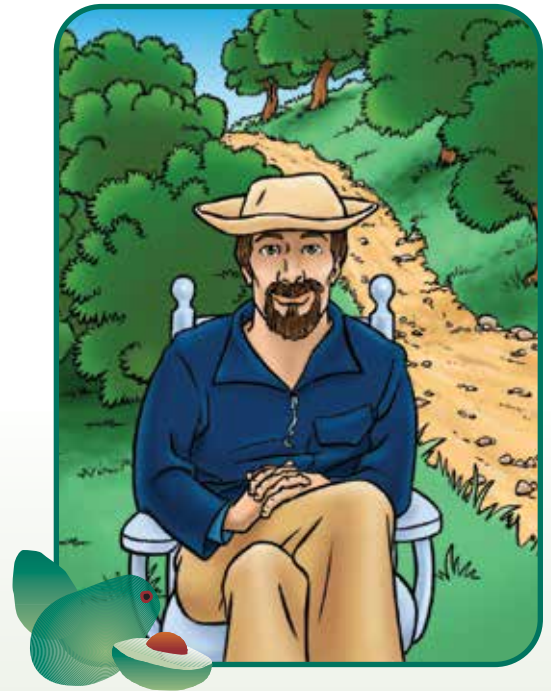
4 large
avocados
for \$2.50

- What would be the price of 1 avocado of each size? (Round your answer to the nearest 10 cents.)
- How many full bags of each size does Brett sell for \$20?
- I want to buy up to \$30 worth of avocados in a full range of sizes. Choose a mixture of bags that costs at least \$28.

2. Brett's harvest is 3 000 avocados this year.

- $\frac{1}{5}$ are small.
- $\frac{1}{2}$ are medium.
- The rest are large.

If Brett sells all the avocados (in bags), how much money will he get?



Activity Three

Guacamole is a dip made with avocados, lemon or lime juice, and a few other ingredients, such as tomato, onion, and garlic. It takes $2\frac{1}{2}$ avocados and $\frac{1}{2}$ a lemon to make enough guacamole for 4 children.

- How many avocados and lemons will Rochelle need to make guacamole for:
 - 8 children?
 - a class of 32 children?
- If you want to use 15 avocados to make some guacamole, how many lemons will you need?
 - How many children will you be able to make guacamole for?

