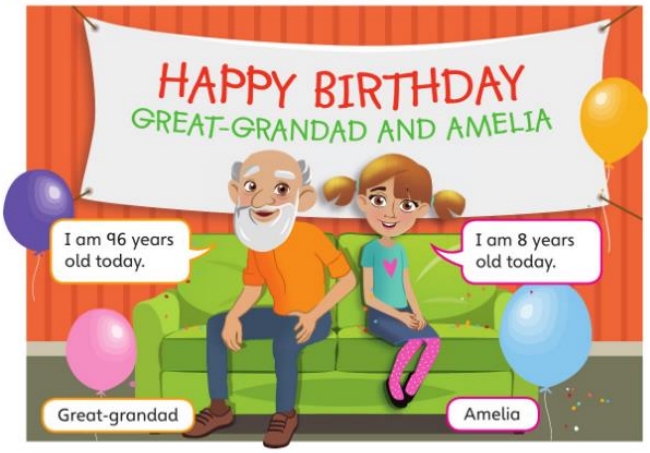
Equivalent difference

Discover



1 **a)** Amelia says that when her great-grandad is 100, there will be even more years between their ages than there is now.

Show whether this is true or not.

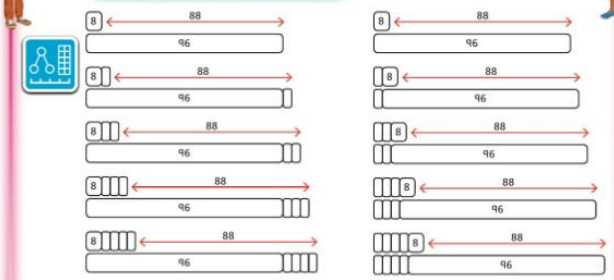
b) What will be the difference between their ages when Amelia's great-grandad is 100?

Share

a)

I will show this using two bars. Every time her great-grandad has a birthday, Amelia will too.

I showed this a different way.



The difference between Amelia's age and her great-grandad's age will always be the same.

b) All of these subtractions find the difference between their ages.

T	O
9	6
−	8

T	O
9	7
−	9

T	O
9	8
− 1	0
8	8

T	O
9	9
− 1	1
8	8

H	T	O
1	0	0
−	1	2

The two subtractions without exchanges are the quickest to work out. 98 − 10 = 88 and 99 − 11 = 88.

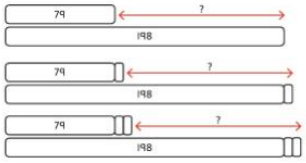
When Great-grandad is 100, Amelia will be 12. The difference between their ages will still be 88 years.

Think together

1 An apple tree is 79 years old and an oak tree is 198 years old.

Write a different subtraction for each bar model.

Choose one of the subtractions to find the difference between the ages of the two trees, and then complete all of the subtractions.

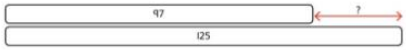


H	T	O
1	9	8
−	7	9

□ − □ = □ The difference is □ years.

2 A giant tortoise is 125 years old and a whale is 97 years old.

Write some subtractions for when they are different ages and choose one to find the difference.



H	T	O
1	2	5
−	9	7

H	T	O
1	2	6
−	9	8

H	T	O
−		

H	T	O
−		

H	T	O
−		

The _____ is □ years younger than the _____ .

3 **a)** 1,000 − 245 = □

CHALLENGE

I will do this as a column subtraction. First, I will need to exchange 1 thousand for 10 hundreds.

I will just work out 999 − 244.

Whose method works better? Why?

Try both methods and compare them. Which is more **efficient**?

Th	H	T	O
1	0	0	0
−	2	4	5

Th	H	T	O
	9	9	9
−	2	4	4

b) Find efficient ways to solve these subtractions.

1,000 − 542 2,001 − 265

2,692 − 836 1,897 − 999

I wonder if I should use the same way for all of these subtractions.

→ Practice book 4A p88