Relating fractions, decimals, and percentages

Conversion Cousins - Part 1

The conversion cousins and their families speak in either fractions, decimals, or percentages.



Percy Percentage lives with his dad. They speak only in percentages.



Dewey Decimal lives with his mum and dad. They speak only in decimals.

Fergus Fraction lives with his younger brother and Grandad. They speak only in fractions.

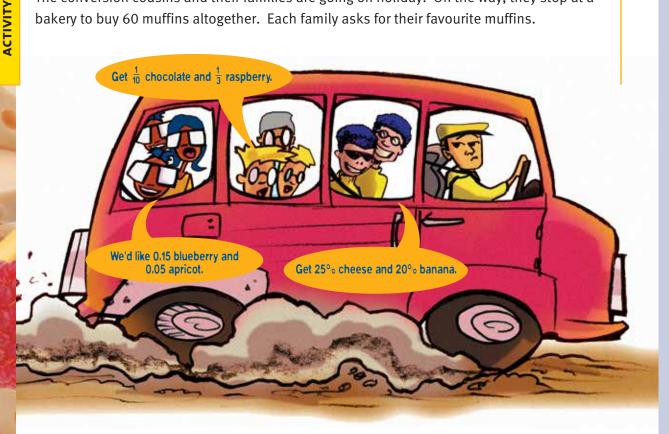
Grandad gives the cousins \$100 between them to buy Christmas presents for their families. The three boys go to the shopping centre.

- 1. \Re Fergus Fraction finds a present for his brother. It costs $\frac{1}{10}$ of the money.
 - The present for Percy Percentage's dad costs 20% of the money.
 - Dewey Decimal finds a present for his dad that costs 0.15 of the money and one for his mum that costs 0.25 of the money.
 - Percy Percentage sees something that their grandad will really like. It will cost 28% of the money.
 - **a.** What does Grandad's present cost?
 - **b.** Is there enough money left to buy it? Explain your answer.
- 2. The cousins keep a record of the money spent.
 Draw and complete the table below to show, in fractions, percentages, decimals, and money, the cost of each present and the total cost of all the presents.

	Fergus's brother	Percy's dad	Dewey's dad	Dewey's mum	Grandad	Total Cost
Fraction	$\frac{1}{10}$					
Percentage		20%				
Decimal			0.15			
Cost (\$)						

Conversion Cousins - Part 2

The conversion cousins and their families are going on holiday. On the way, they stop at a bakery to buy 60 muffins altogether. Each family asks for their favourite muffins.



Draw and complete the table below to show, in fractions, percentages, decimals, and numbers of muffins, how many muffins the families have asked for. Use sensible rounding where necessary.

	Cheese	Banana	Chocolate	Raspberry	Blueberry	Apricot	Total
Fraction							
Percentage							
Decimal							
Number of muffins							

- **b.** The cousins discover that the families have asked for more than 60 muffins altogether. How many extra muffins have they asked for?
- c. The cousins decide that they will get fewer raspberry muffins. How many raspberry muffins should they get to make a total order of 60?
- The bakery has a special offer: for every three muffins bought, another one is free. How many muffins do the cousins pay for?
- 3. When they get back to the car park, the cousins tell their families about the discount. What might each cousin say?