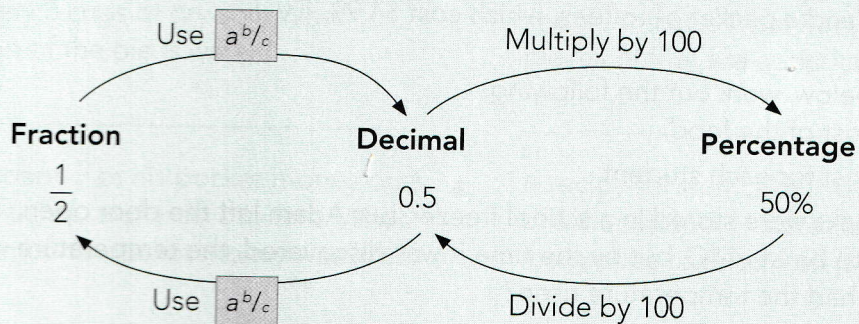# Converting between decimals, fractions and percentages

Fractions are a way of displaying parts of numbers. You can convert fractions into decimals using your calculator with either $a^b/_c$ or $\vdots$ or $S \Longleftrightarrow D$

Use $a^b/_c$ Multiply by 100

Fraction   **Decimal**   **Percentage**

$\dfrac{1}{2}$ 0.5   50%

Use $a^b/_c$ Divide by 100

Fill in the blanks in the table below.

Fraction	Decimal	Percentage
$\dfrac{1}{4}$		
	0.75	
		30%
	0.2	
$\dfrac{3}{5}$		
		68%
	0.12	
$\dfrac{7}{8}$		
		100%
	2.5	
		4%
	1.2	

Percentages

Calculating percentages

- To turn a fraction into a percentage, multiply by 100.

Example: 47 out of 64 Year 11 girls play sport. What percentage play sport?

$\frac{47}{64} \times 100 = 73.4\%$ (1 dp)   or use the **percentage** button on your calculator: $\frac{47}{64}$ % $= 73.4\%$ (1 dp)

Convert these into percentages.

1 There are 14 girls in a class of 25. What percentage are girls?

2 It rained on eight days last April. On what percentage of days did it rain?

3 Nine out of the 20 pieces of fruit in a bowl were bananas. What percentage were bananas?

4 Annie was absent from five out of 42 mathematics lessons. For what percentage was she present?

5 The normal price of a pair of jeans was $85. In a sale, $15 was taken off this price. By what percentage were they reduced?

6 A muesli recipe requires 6 cups of dry ingredients, 1 cup of which is bran. What percentage of the dry ingredients is bran?

7 Tamara earned 108 credits in NCEA Level 1. Of these, 21 were excellence credits, 53 were merit, 28 were achieved and 6 were not achieved. Calculate the percentage of each type of credit.

8 Eru was doing a survey of vehicles entering the school. Of the 38 vehicles, 22 were private cars, 9 were motor bikes, 4 were taxis and 3 were delivery vans. Calculate the percentage of each type of vehicle.

9 When Amelia was in Australia, her bank charged her $5 per transaction on her eftpos card. Calculate the percentage of the **total** transaction that she pays the bank when
a she buys a $35 shirt using eftpos.

b she withdraws $200 cash using her eftpos card.