YR4 FRACTIONS KNOWLEDGE ORGANISER

Key Concepts

- Count up and down in hundredths; recognise that hundredths arise from dividing an object into 100 equal parts and in dividing tenths by 10.
- Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.
- Recognise and show, using diagrams, equivalent fractions with small denominators.
- Add and subtract fractions with the same denominator.

Key Vocabulary

- fraction
- numerator
- denominator
- equivalent
- unit fraction
- hundredths
- tenths

Hundredths

Hundredths are 10 times smaller than tenths. Their place on the place value chart is to the right of the tenths column. A zero is used as a place holder to show there are no tenths.

H	T	O	•	t	h
		0	•	0	1

Hundredths can be found by dividing 1-digit numbers by 100.

8 ÷ 100 = 0.08 or 8 hundredths

H	T	O	•	t	h
		8	•		
		0	•	0	8

There are 10 hundredths in 1 tenth.

1/100	2/100	3/100	4/100	5/100	6/100	7/100	8/100	9/100	10/100

One tenth

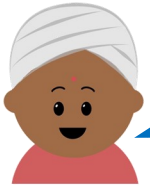
Hundredths can be written as a fraction and as a decimal number.

$\frac{1}{100} = 0.01$

Solve Problems Involving Fractions

When finding a fraction of a quantity or number; First divide by the denominator then, multiply the answer by the numerator.

Ranjit got $\frac{5}{9}$ of the 108 questions correct on his test. What was his score?



I need to find $\frac{5}{9}$ of 108

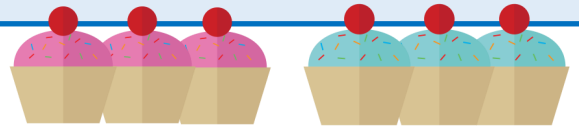
Divide by the denominator: 108 ÷ 9 = 12

Multiply by the numerator: 12 x 5 = 60.

Ranjit scored 60 on his test.

A baker made 640 cupcakes. He sold $\frac{7}{16}$ of them on Monday.

How many cupcakes does he have left?



640 ÷ 16 = 40 40 x 7 = 280.

640 - 280 = 360 cupcakes

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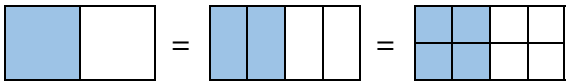
Equivalent Fractions

Equivalent fractions have different denominators and numerators but are the same amount.

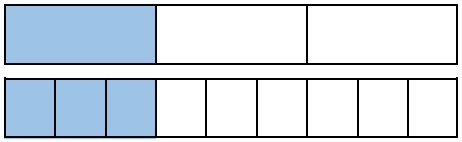


$\frac{1}{2} = \frac{2}{4} = \frac{4}{8}$

Equivalent fractions can be found by multiplying the numerator and the denominator by the same number.

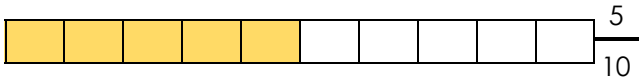
$\frac{1}{3} \times \frac{2}{2} = \frac{2}{6}$

$\frac{1}{3} \times \frac{2}{2} = \frac{3}{9}$

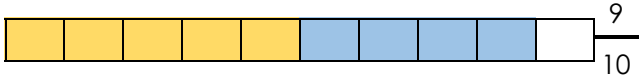


Add Fractions

When adding fractions with the same denominator, the denominator does not change. The numerators only are added.

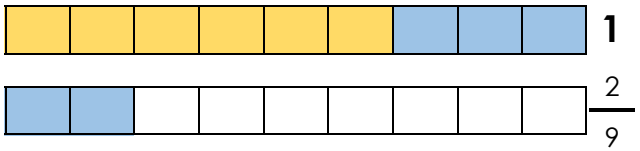


$\frac{5}{10} + \frac{4}{10} = \frac{9}{10}$



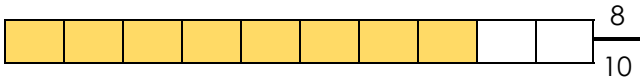
Sometimes when adding two fractions, the answer will be greater than one whole.

$\frac{6}{9} + \frac{5}{9} = \frac{11}{9} = 1\frac{2}{9}$

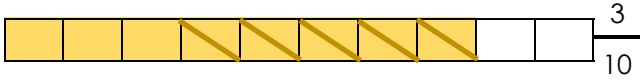


Subtract Fractions

When subtracting fractions with the same denominator, the denominator does not change. The numerators only are subtracted.



$\frac{8}{10} - \frac{5}{10} = \frac{3}{10}$



When subtracting from more than one whole, the whole will need to be divided into the number of parts shown by the denominator.

$1\frac{3}{8} - \frac{7}{8} = \frac{4}{8}$