

Content domain – fractions, decimals and percentages

Strand	National Curriculum reference Year 1	National Curriculum reference Year 2	National Curriculum reference Year 3	National Curriculum reference Year 4	National Curriculum reference Year 5	National Curriculum reference Year 6
F1 Recognise, find, write, name and count fractions	1F1a Recognise, find and name a half as one of two equal parts of an object, shape or quantity 1F1b Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity	2F1a Recognise, find, name and write fractions 1/3, ¼, 2/4 and ¾ of a length, shape, set of objects or quantity 2F1b Write simple fractions [e.g.: ½ of 6 = 3]	Gount up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 3F1b Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators 3F1c Recognise and use fractions as numbers: unit fractions and non-unit	4F1 Count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten		
F2 Equivalent fractions		2F2 Recognise the equivalence of 2/4 and ½	fractions with small denominators 3F2 Recognise and show, using diagrams, equivalent fractions with small denominators	4F2 Recognise and show, using diagrams, families of common equivalent fractions	5F2a Recognise mixed numbers and improper fractions and convert from one form to the other; write mathematical statements >1 as a mixed number [e.g.: 2/5 + 4/5 = 6/5= 1 1/5]	6F2 Use common factors to simplify fractions; use common multiples to express fractions in the same denomination
					5F2b Identify name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths	



F3	3F3		5F3	6F3
Comparing	Compare and order unit		Compare and order fractions	Compare and order
and ordering	fractions and fractions with		whose denominators are all	fractions, including
fractions [KS2]	the same denominators		multiples of the same number	fractions >1
nactions [NO2]				
	3F4	4F4	5F4	6F4
F4	Add and subtract fractions	Add and subtract fractions	Add and subtract fractions	Add and subtract fractions
Add / subtract	with the same denominator	with the same denominator	with the same denominator	with different denominators
fractions [KS2]	within one whole [e.g.: 5/7 +	war are same deficitionate.	and denominators that are	and mixed numbers, using the
	1/7= 6/7]		multiples of the same number	concept of equivalent
	•		•	fractions
			5F5	6F5a
F5			Multiply proper fractions and	Multiply simple pairs of proper
			mixed numbers by whole	fractions, writing the answer in
Multiply /			numbers, supported by	its simplest form [e.g.: 1/4 × 1/2
divide fractions [KS2]			materials and diagrams	= 1/8] 6F5b
[KO2]				Divide proper fractions by
				whole numbers [e.g.: $1/3 \div 2 =$
				1/6]
		4F6a	5F6a	6F6
		Recognise and write decimal	Read and write decimal	Associate a fraction with
F6		equivalents to 1/4, 1/2, 3/4	numbers as fractions [e.g.:	division to calculate decimal
			0.71 = 71/100]	fraction equivalents (e.g.:
Fractions /				0.375) for a simple fraction
decimals equivalence		450	550	[e.g.: 3/8]
equivalence		4F6b	5F6b	
		Recognise and write decimal equivalents of any number of	Recognise and use thousandths and relate them	
		tenths or hundredths	to tenths, hundredths and	
		teritis of manarcatis	decimal equivalents	
F7		4F7	5F7	
Rounding		Round decimals with one	Round decimals with two	
decimals [KS2]		decimal place to the nearest	decimal places to the nearest	
		whole number	whole number and to one	
		450	decimal place	
F8		4F8	5F8	
Compare and		Compare numbers with the same number of decimal	Read, write, order and compare numbers with up to	
order decimals		places up to two decimal	three decimal places	
[KS2]		places up to two decimal	and decimal places	
F9		4F9		6F9a
Multiply /		Find the effect of dividing a		Identify the value of each digit
divide		one- or two-digit number by		to three decimal places and
decimals [KS2]		10 and 100, identifying the		multiply and divide numbers
300111010 [1102]		value of the digits in the		by 10, 100 and 1000 giving



answer as ones, tenths and hundredths April						
SF10 Solve problems that involve Solve problems involving increasingly harder fractions to calculate quantities and decimals [KS2] Solve problems with fractions and decimals [KS2] Solve problems with percentage equivalence [KS2] Solve problems with percentages Solve problems with percentages Solve problems with percentages Solve problems with percentages Solve problems with percentage and decimal places Solve problems involving increasingly harder fractions to calculate quantities and fractions to decimal places Solve problems involving increasingly harder fractions where the anxiety is a whole quantities, including non-unit fractions where the anxiety is a whole quantities, including non-unit fractions where the anxiety is a whole quantities, including non-unit fractions where the anxiety is a whole quantities and fractions to decimal places Solve problems which require anxiety is a constant of the problems with percentage and decimal and understand that per cent relates to number of parts per hundred; write percentages as a fraction with denominator hundred, and as a decimal solve problems with percentages Solve problems which require knowing percentage and decimal equivalents of ¼, ¼, 15, 2/5, 4/6 and those fractions with denominator denominator and decimal equivalents of ½, ¼, 15, 2/5, 4/6 and those fractions with denominator denominator and decimal equivalents of ½, ¼, 15, 2/5, 4/6 and those fractions with denominator denominator and decimal equivalents of ½, ¼, 15, 2/5, 4/6 and those fractions with denominator denominator denominator decimal equivalents of ½, ¼, 15, 2/5, 4/6 and those fractions with denominator d						
Multiply one-digit numbers with up to two decimal places by whole numbers of \$F0\$ Use written division methods in cases where the answer has up to two decimal places by whole numbers of \$F10\$ Use written division methods in cases where the answer has up to two decimal places of \$F20\$ Use written division methods in cases where the answer has up to two decimal places of \$F20\$ Use written division methods in cases where the answer has up to two decimal places of \$F20\$ Use written division methods in cases where the answer has up to two decimal places of \$F20\$ Use written division methods in cases where the answer has up to two decimal places of \$F20\$ Use written division methods in cases where the answer has up to two decimal places of \$F20\$ Use written division methods in cases where the answer has up to two decimal places of \$F20\$ Use written division methods in cases where the answer has up to two decimal places of \$F20\$ Use written division methods in cases where the answer has up to two decimal places of \$F20\$ Use written division methods in case where the answer has up to two decimal places of \$F20\$ Use written division methods in cases where the answer has up to two decimal places of \$F20\$ Use written division methods in cases where the answer has up to two decimal places of \$F20\$ Use written division methods in cases where the answer has up to two decimal places of \$F20\$ Use written division methods in cases where the answer has up to two decimal places of \$F20\$ Use written division methods in cases where the answer has up to two decimal places of \$F20\$ Use written division methods in cases where the answer has up to two decimal places of \$F20\$ Use written division methods in cases where the answer has up to two decimal places of \$F20\$ Use written division methods in cases where the answer has up to two decimal places of \$F20\$ Use written division methods in cases where the answer has up to two decimal places of \$F20\$ Use written division methods in cases where				nundreaths		
### With up to two decimal places by whole numbers F10						
Solve problems that involve Solve problems involving increasingly harder fractions to divide quantities and fractions and decimals [KS2] Solve simple measure and money problems involving fractions and decimal places SF11 Solve simple measure and money problems involving fractions and decimal places SF11 Solve simple measure and money problems involving fractions and decimal places SF11 Recognise the per cent elates to "number of parts per hundred," with percentages as a fraction with denominator hundred, and as a decimal sequivalence (KS2) Solve problems with percentages as a fraction with genominator sixty Solve problems with percentages as a fraction with denominator sixty Solve problems with percentages as a fraction with denominator sixty Solve problems with percentages as a fraction with genominator sixty Solve problems with percentages as a fraction with denominator sixty Solve problems with percentages as a fraction with denominator sixty Solve problems with percentages and decimal equivalents of ½, ½, 1/5, 2/5, 4/5 and those fractions with a denominator sixty Solve problems with percentages as a fraction with denominator sixty Solve problems with percentages and second equivalences Solve problems with percentages and second equivalences Solve problems with percentages and second secon						
SF10 Solve problems that involve SF1-3F4 Solve problems involving increasingly harder fractions to calculate quantities and fractions and decimals [KS2] SF10 Solve problems with fractions and decimal places SF11 Second places SF12 Solve problems with percentage and places SF12 Solve problems with percentages and decimal places SF12 Solve problems involving fractions and decimals to two decimal places SF12 Solve problems involving fractions and decimals to two decimal places SF12 Solve problems with percentages and decimals SF12 Solve problems with percentages and decimals SF12 Solve problems with percentages and decimals to fix, %, 1/5, 2/5, 4/5 and those fractions with a denominator SF12 Solve problems with percentages SF12 Solve problems involving including not problems with percentage SF12 Solve problems involving including not problems with percentage SF12 Solve problems involving including not problems with percentage SF12 Solve problems involving in						
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Solve problems that involve 3F1-3F4 Solve problems involving increasingly harder fractions to calculate quantities and fractions to divide quantities and fractions and decimals [KS2] 4F10b Solve simple measure and money problems involving fractions and decimal places F11 Fractions / decimal / percentage equivalence [KS2] F12 Solve problems with percentages sas a fraction with denominator problems with percentages as a fractions with denominator simple fractions with percentages as a fractions with denominator of ½, ½, 15, 2/5, 4/5 and those fractions with genometric and money problems involving numbers up to three decimal places Solve problems which require and fractions to divide quantities and fractions and decimal places SF11 Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred'; write percentages as a fraction with denominator hundred, and as a decimal solve problems with percentage and decimal equivalents of ½, ½, 1/5, 2/5, 4/5 and those fractions with a denominator and decimal equivalents of ½, ½, 1/5, 2/5, 4/5 and those fractions with a denominator and money problems with percentages as a fractions with a denominator and decimal equivalents of ½, ½, 1/5, 2/5, 4/5 and those fractions with a denominator and decimal equivalents of ½, ½, 1/5, 2/5, 4/5 and those fractions with a denominator and problems with percentages.						nas up to two decimal places
Solve problems that involve 3F1-3F4 Solve problems involving increasingly harder fractions to calculate quantities and fractions to divide quantities and fractions and decimals [KS2] 4F10b Solve simple measure and money problems involving fractions and decimal places F11 Fractions / decimal / percentage equivalence [KS2] F12 Solve problems with percentages sas a fraction with denominator problems with percentages as a fractions with denominator simple fractions with percentages as a fractions with denominator of ½, ½, 15, 2/5, 4/5 and those fractions with genometric and money problems involving numbers up to three decimal places Solve problems which require and fractions to divide quantities and fractions and decimal places SF11 Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred'; write percentages as a fraction with denominator hundred, and as a decimal solve problems with percentage and decimal equivalents of ½, ½, 1/5, 2/5, 4/5 and those fractions with a denominator and decimal equivalents of ½, ½, 1/5, 2/5, 4/5 and those fractions with a denominator and money problems with percentages as a fractions with a denominator and decimal equivalents of ½, ½, 1/5, 2/5, 4/5 and those fractions with a denominator and decimal equivalents of ½, ½, 1/5, 2/5, 4/5 and those fractions with a denominator and problems with percentages.						
F10 Solve problems with fractions and decimals [KS2] F11 F11 Fractions / decimal / percentage equivalence [KS2] F12 Solve problems with percentages are gracingly harder fractions to divide quantities and fractions to divide quantities, including non-unit fractions where the answer is a whole number F11 F12 F12 Solve simple measure and money problems involving fractions and decimal sto two decimal places F12 Solve problems with percentages as a fraction with denominator hundred, and as a decimal places F12 Solve problems with percentages as a fraction with denominator hundred, and as a decimal decimal equivalents of ½, ¼, 1/5, 2/5, 4/5 and those fractions with a denominator fraction with a denominator fractions with a denominator fraction with the decimal places F11 F12 F13 F14 F15 F15 F15 F15 F16 F17 F17 F18 F18 F18 F19 F19 F19 F19 F19						
F10 Solve problems with fractions and decimals [KS2] F11 Fractions / decimal / percentage equivalence [KS2] F12 Solve problems with percentages and decimal / percentages graces [KS2] F12 Solve problems involving fractions and decimals to two decimal / percentages graces [KS2] F13 F14 F15 F15 F15 F15 F16 F17 F18 F18 F19						
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Solve problems with fractions and decimals [KS2] #100 #110	E10				decimal places	specified degrees of accuracy
problems with fractions and decimals [KS2] F11						
fractions and decimals [KS2] F11						
decimals [KS2] #F10b Solve simple measure and money problems involving fractions and decimals to two decimal places F11						
Solve simple measure and money problems involving fractions and decimals to two decimal places F11 Fractions / decimal / percentage equivalence [KS2] F12 Solve problems with percentages substance problems with percentages fractions with a denominator substance problems with percentages substance problems with percentages substance problems with percentages fractions with a denominator substance problems with percentages substance problems involving fractions and decimal places. Solve problems with percentages problems involving fractions and decimal substance problems involving fractions and decimal substance problems involving fractions and decimal places. Solve problems involving fractions, decimal substance problems involving fractions, decimal substance problems involving fractio						
## F11 Fractions / decimal / percentage equivalence [KS2] F12 Solve problems with percentages with percentages with percentages with percentages fractions with a denominator fractions	uecimais [NS2]					
F11 Fractions / decimal / percentage equivalence [KS2] F12 Solve problems with percentages with percentages [KS2] F13 F14 F15 F15 F15 F15 F15 F15 F16 F17 Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred'; write percentages as a fraction with denominator hundred, and as a decimal symbol (which is a special part of parts per hundred) including in different contexts of the percentages and decimal equivalents of ½, ½, 1/15, 2/5, 4/5 and those fractions with a denominator symbol (which is a special part of the percentages) including in different contexts of 1/2, ½, 1/15, 2/5, 4/5 and those fractions with a denominator symbol (which is a special part of the percentages) including in different contexts of 1/2, ½, 1/15, 2/5, 4/5 and those fractions with a denominator symbol (which is a special part of the percentages) including in different contexts of 1/2, ½, 1/15, 2/5, 4/5 and those fractions with a denominator symbol (which is a special part of the percentages) including in different contexts of 1/2, ½, 1/15, 2/5, 4/5 and those fractions with a denominator symbol (which is a special part of the percentages) including in different contexts of 1/2, ½, 1/15, 2/5, 4/5 and those fractions with a denominator symbol (which is a special part of the percentages) including in different contexts of 1/2, ½, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2, 1/2						
F11 Fractions / decimal / percentage equivalence [KS2] F12 Solve problems with percentages and decimal equivalents of ½2, ¼4, 1/5, 2/5, ¼5 and those fractions with a denominator fractions with a denominator support of parts per hundred; write percentages as a fraction with denominator hundred, and as a decimal equivalents of ½2, ¼4, 1/5, 2/5, ¼5 and those fractions with a denominator support of parts per hundred; write percentages as a fraction with denominator hundred, and as a decimal equivalents of ½2, ¼4, 1/5, 2/5, ¼5 and those fractions with a denominator support of percentages						
F11 Fractions / decimal / percentage equivalence [KS2] F12 Solve problems with percentages IKS2I F13 F14 Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred'; write percentages as a fraction with denominator hundred, and as a decimal F12 Solve problems with percentages IKS2I F13 F14 Recall and use equivalence between simple fractions, decimals and percentages, including in different contexts F15 Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts F17 F18 F19						
Fractions / decimal / percentage equivalence [KS2] F12 Solve problems with percentages with percentages with percentages [KS2] F12 Solve problems with percentages with percentages [KS2]				acomai piacoc	5F11	6F11
decimal / percentage equivalence [KS2] F12 Solve problems with percentages with percentages with percentages with percentages [KS2] Solve problems with percentages [KS2] F12 Solve problems with percentages and decimal equivalents of ½, ¼, 1/5, 2/5, 4/5 and those fractions with a denominator	F11				Recognise the per cent	Recall and use equivalences
percentage equivalence [KS2] F12 Solve problems with percentages as problems with percentages as a fractions with denominator knowing percentage and decimal equivalents of ½, ¼, 1/5, 2/5, 4/5 and those fractions with a denominator	Fractions /				symbol (%) and understand	between simple fractions,
equivalence [KS2] write percentages as a fraction with denominator hundred, and as a decimal 5F12 Solve problems which require knowing percentage and decimal equivalents of ½, ¼, percentages [KS2] Interval to the percentage and the percentage and the percentages fractions with a denominator	decimal /					
[KS2] fraction with denominator hundred, and as a decimal 5F12 Solve problems which require knowing percentage and decimal equivalents of ½, ¼, percentages problems with percentages fractions with a denominator						including in different contexts
hundred, and as a decimal 5F12 Solve problems which require knowing percentage and decimal equivalents of ½, ¼, percentages 1/5, 2/5, 4/5 and those fractions with a denominator						
F12 Solve problems which require knowing percentage and decimal equivalents of ½, ¼, percentages fractions with a denominator	[KS2]					
Solve problems which require knowing percentage and decimal equivalents of ½, ¼, percentages fractions with a denominator						
Solve problems with percentages IKS21 knowing percentage and decimal equivalents of ½, ¼, 1/5, 2/5, 4/5 and those fractions with a denominator						
problems with percentages [KS2] decimal equivalents of ½, ¼, 1/5, 2/5, 4/5 and those fractions with a denominator	F12					
percentages IKS21 1/5, 2/5, 4/5 and those fractions with a denominator	Solve					
percentages fractions with a denominator	problems with					
of a multiple of 10 of 25	[KS2]					

