First Level – Exploring Number
Fractions Homework Cards

F1.1a I understand what a half means – I can create and identify a half of a shape and can find a half of a number

Halve it! Ask children to find as many examples as they can of halves being mentioned in newspapers or magazines. These examples might come from sports reports (half-time, first half), times (half an hour), adverts (half-price), measurements (half full, half a cup), etc. Children draw, stick or write about them for their learning log.

F1.1a I understand what a half means – I can create and identify a half of a shape and can find a half of a number

Half a shape Ask children to draw shapes and find different ways of finding half.

F1.1b I understand what a half means – I can describe and record a half in a variety of different ways and can locate it on a number line

Half full Ask children to find containers at home, such as measuring jugs, plastic bottles and cartons, and to half-fill them with water. They try to find how much each full container holds and work out approximately how much water they have put into each. They record their findings in pictures and words.

F1.1b I understand what a half means – I can describe and record a half in a variety of different ways and can locate it on a number line

Number line game *coins* Ask children to draw a large number line with whole numbers from 0 to 10 and play the following game with another person. Each places a coin on zero to start. They take turns to toss a third coin. If it lands heads up, they move their coin along 1/2, and say aloud the number landed on, e.g. one half, or three and a half. If the coin lands tails up, they move on 1 whole. The winner is the first player to reach or move beyond 10.

F1.2a I understand what a quarter means – I can create and identify quarters of a shape and can find quarters of a number

Quarter it! Ask children to find as many examples as they can of quarters being mentioned in newspapers or magazines. These examples might come from sports reports (quarter-backs), times (quarter of an hour, three quarters of an hour, the first quarter of the year), measurements (quarter of a kilogram), etc. Children draw, stick or write about them in their learning log.

F1.2a I understand what a quarter means – I can create and identify quarters of a shape and can find quarters of a number

Bob and Betty Ask children to collect some small objects for sorting, e.g. coins, grapes or sweets. They choose a multiple of 4, such as 8, 12, 16, 20 or 24 and count out that many objects. Explain that they must share them between Bob and Betty. Bob gets one quarter of them and Betty gets three quarters of them each time, e.g. for 16 sweets, Bob gets 4 and Betty gets 12. They record their findings in learning logs.

F1.2b I understand what a quarter means – I can describe and record quarters in a variety of different ways and can locate them on a number line

Number line game *coins* Ask children to draw a large number line with whole numbers from 0 to 5 and play the following game with another person. Each places a coin on 0 to start. Take turns to toss a third coin. If it is heads up, move the coin one quarter along the line and say aloud the number landed on, e.g. one quarter, three and a half or two and three quarters. If the coin lands tails up, move on a half. The winner is the first player to reach or move beyond 5.

F1.2b I understand what a quarter means – I can describe and record quarters in a variety of different ways and can locate them on a number line

Quarter to/past Ask children to write an explanation in their learning logs of why we use the words 'quarter past' and 'quarter to' when saying times. Encourage them to include diagrams, to mention the number of minutes past the hour and to explain the link between quarters and 'half past' the hour.

F1.3a I understand what a tenth means – I can create and identify tenths of a shape and can find tenths of a number

Chocolate puzzles Tell children that four chocolate bars are made of ten chunks. Ask them to work out how many chunks each person will get if all the chunks are shared equally between: two people, four people, five people, eight people, 10 people. Encourage children to draw diagrams to help them explore these puzzles.

F1.3a I understand what a tenth means – I can create and identify tenths of a shape and can find tenths of a number

Tenths Ask children to draw five 5 × 2 grids. On each grid they colour five squares to show 5\10, but they do it differently on each grid. Can they say another fraction that is equal to 5\10?

F1.3b I understand what a tenth means – I can describe and record tenths in a variety of different ways and can locate them on a number line

Coin collections Ask children to find one 10p coin. Ask them to draw around it ten times, colour some and then write what fraction of £1 the coloured set is, e.g. 40p is 4\10 of £1 or 90p is 9\10 of £1.

F1.3b I understand what a tenth means – I can describe and record tenths in a variety of different ways and can locate them on a number line

Number lines *squared paper, coins* Give children squared paper and help them to draw a 0–2 number line, marked in tenths (i.e. with 20 intervals). They play the following game with another person at home. Each places a coin on 0 to start. They take turns to toss a third coin. If it lands heads up, move their coin 1\10 along the line and say aloud the number landed, on, e.g. one tenth, one and two tenths. If the coin lands tails up, they can move on 2\10. The winner is the first player to reach or move beyond 2.

F1.4a I understand what a fifth means – I can create and identify fifths of a shape and can find fifths of a number

Coin collections Ask children to find a 20p coin and draw around it five times, then colour some in. Write what fraction of £1 the coloured set is. e.g. 40p is 2/5 of £1 or 90p is 4/5 of £1.

F1.4a I understand what a fifth means – I can create and identify fifths of a shape and can find fifths of a number

Shapes shading *squared paper* Ask children to draw different shapes made from 5 squares on to squared paper. They shade parts of each shape and write statements about what fraction of each shape is each colour, e.g. 3\5 of this shape is red. Some children could be asked to make shapes from 10 squares and make the link between tenths and fifths.

F1.4b I understand what a fifth means – I can describe and record fifths in a variety of different ways and can locate them on a number line

Mind map Ask children to draw a mind map to show what they know about fifths. Encourage them to include different representations of fifths, number lines, notation, fifths of numbers, real-life examples (one fifth of a pound is 20p). The mind maps can form a useful classroom display.

F1.4b I understand what a fifth means – I can describe and record fifths in a variety of different ways and can locate them on a number line

Number lines *squared paper, coins* Give children squared paper and help them to draw a 0–3 number line, marked in fifths (i.e. with 15 intervals). They play the following game with another person at home. Each places a coin on 0 to start. Take turns to toss a third coin. If it lands heads up, move the counter 1\5 along the line and say aloud the number landed on, e.g. one fifth, three and two fifths. If the coin lands tails up, they move on 2\5. The winner is the first player to reach or move beyond 3.

F1.5 I can talk about finding hundredths

Coin collections Ask children to collect together coins with totals less than £1. Ask them to draw around sets of the coins and then write what fraction of £1 each set is, e.g. 12p is 12\100 of £1 or 90p is 90\100 of £1.

F1.5 I can talk about finding hundredths

Badge colouring *cm squared paper* Give children a 10 × 10 piece of cm squared paper. Ask them to colour the paper using up to five colours to make a badge. Whole squares only should be coloured. Children write statements describing the fraction each colour is of their badge, e.g. 17\100 of the badge is red.

F1.6a I can compare and order simple fractions – Halves, quarters, fifths and tenths

Sorting objects Ask children to sort 20 small identical objects, such as 1p coins, grapes or sweets into two equal groups, then into four equal groups, then five equal groups and then 10 equal groups. They record the number in the groups, e.g. 1\2 of 20 = 10, 1\4 of 20 = 5, 2\4 of 20 = 10, 3\4 of 20 = 15. Ask them to note when a group or groups have the same number, e.g. 5\10 of 20 = 2\4 of 20 = 1\2 of 20 = 10.

F1.6a I can compare and order simple fractions – Halves, quarters, fifths and tenths

Teach them how Ask children to write two short explanations in their learning logs for children of a younger age. These should explain how fractions such as halves, quarters, fifths and tenths are related to each other and that some actually have the same value, e.g. 2\10 and 1\5. Encourage use of diagrams or number lines to support their explanations.

F1.6b I can compare and order fractions – Other simple fractions

Sorting objects Ask children to sort 24 small identical objects, such as 1p coins, grapes or sweets into 2 equal groups, then into 3 equal groups, then 4, then 6 and then 8 equal groups. They record the number in the groups e.g. 1\2 of 24 = 12, 1\4 of 24 = 6, 2\4 of 24 = 12, 3\4 of 24 = 18. Ask them to note when a group or groups have the same answer, e.g. 2\8 of 24 = 1\4 of 24 = 6.

F1.6b I can compare and order fractions – Other simple fractions

Ordering fractions *fraction wall* Ask children to use the fraction wall to help them compare and order fractions, such as 3\8, 2\5, 3\10, 1\2, 2\3, etc. They write four sets of five fractions where the fractions in each set are in order, starting with the smallest. None of the fractions should have the same denominator.