



ANSWER SHEET



Monday -

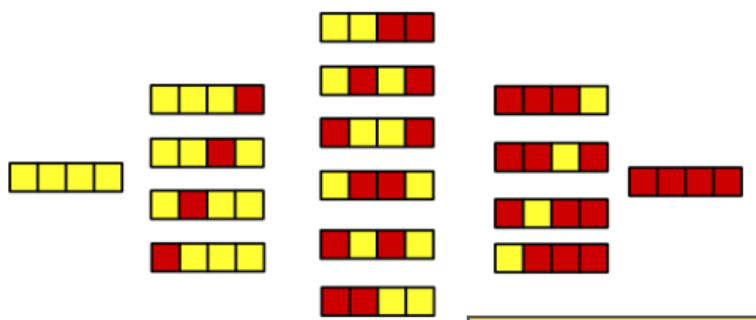
What is a fraction?

Starter Answer

STARTER:

You only have red and yellow pencils.
How many different ways can you colour this strip?

There are 16 different ways:



Mild

1a. ● ○ ● and

2a. $A = \frac{1}{2}$; $B = \frac{1}{9}$; $C = \frac{1}{11}$; $D = \frac{1}{5}$

3a. Both fractions should be placed on the first increment of the appropriate number line.

4a. False; $\frac{1}{11}$.

Medium

Hauwa says,

If I have a pizza and I cut it into
four pieces,
I have cut it into quarters.

Mastery:

I understand what a fraction is and what the numbers in a fraction represent. I can represent fractions in different ways.

Greater Depth:

I can apply my knowledge about fractions when using reasoning to justify my ideas and answers.

Is Hauwa's statement always, sometimes or never true?

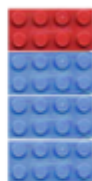
It is sometimes true. It is possible to cut a shape into four pieces without them being quarters if the pieces are not equal in size. If Hauwa cuts the pizza into four equal parts, then she has cut it into quarters. If they are not all equal then they are not quarters!

Jamie has made some different representations of $\frac{3}{5}$.

Which ones are not correct?



$$\frac{3}{5}$$



Each part is not of equal size.

This shows three quarters,
not three fifths.



three fifths

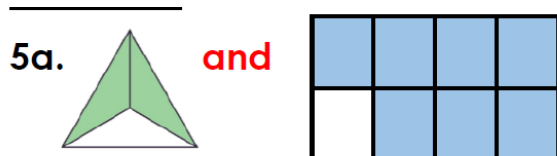


Mastery:

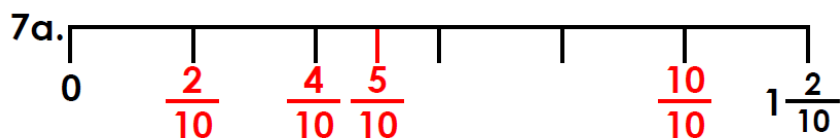
I understand what a fraction is and what the numbers in a fraction represent. I can represent fractions in different ways.

Greater Depth:

I can apply my knowledge about fractions when using reasoning to justify my ideas and answers.



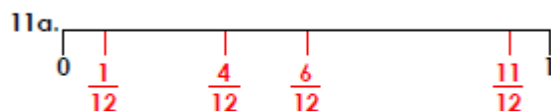
6a. $A = \frac{8}{10}$; $B = \frac{3}{12}$; $C = \frac{2}{6}$; $D = \frac{1}{7}$



Spicy:

9a. A is $\frac{4}{10}$ or $\frac{6}{10}$; B is $\frac{1}{6}$ or $\frac{5}{6}$;
C is $\frac{3}{12}$ or $\frac{9}{12}$; D is $\frac{1}{12}$ or $\frac{11}{12}$

10a. $A = \frac{2}{7}$; $B = \frac{3}{9}$; $C = \frac{3}{10}$; $D = \frac{3}{10}$; $\frac{5}{11}$ is the remaining fraction.



12a. True

Sometimes

If the shape is not split equally it will not be in quarters.

Has not been split into equal parts.



Shows either $\frac{3}{5}$ or $\frac{2}{5}$



Tuesday

Equivalent Fractions

Mild:

1a. $\frac{1}{4}$ and $\frac{2}{8}$

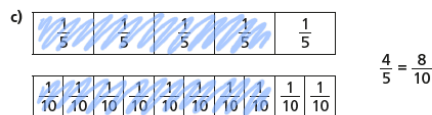
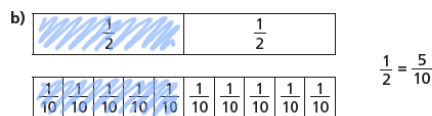
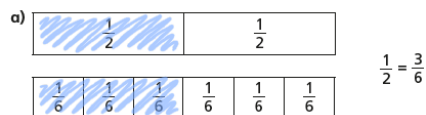
2a. False, $\frac{1}{2}$ is not equivalent to $\frac{2}{5}$.

3a. A and C

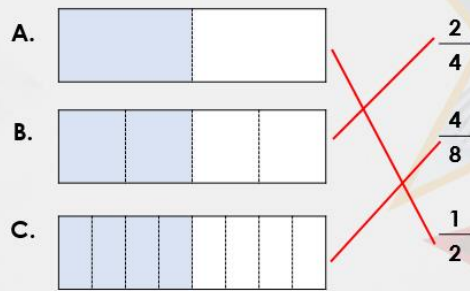
4a. Any one part of the circle shaded; any two parts of the rectangle; any one part of the triangle; any two parts of the hexagon.

Medium:

Shade the bar models to represent the equivalent fractions.

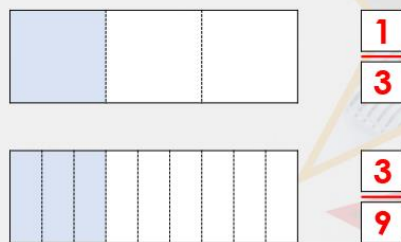


The same strip of paper has been folded in different ways.

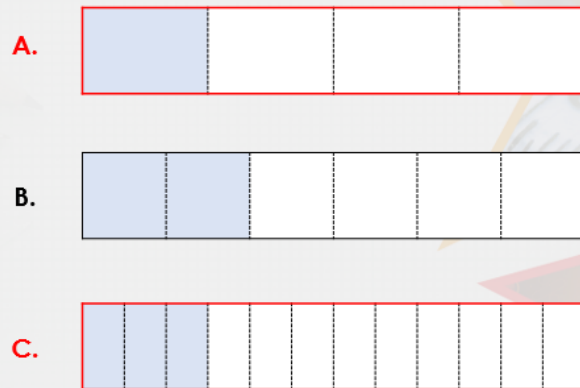


Match the strip of paper to the correct fraction.

Write the fraction represented by the shaded part of the images.



Which 2 fractions are equivalent to each other?



Fraction A is equivalent to C.

Spicy:

9a. $\frac{3}{4}$, $\frac{6}{8}$ and $\frac{9}{12}$

10a. Accept two parts shaded.

11a. B and C

12a. Any six parts of the circle shaded;
any two parts of the triangle; any six parts
of the triangle; any eight parts of the
rectangle.

Children can give
a variety of
possibilities.
Examples:

$$\frac{1}{2} = \frac{6}{12} = \frac{3}{6}$$

$$\frac{1}{4} = \frac{3}{12}$$

Eva is not correct.
 $\frac{3}{4}$ is equivalent to $\frac{6}{8}$
When the
numerators are
the same, the
larger the
denominator, the
smaller the
fraction.

Ron could have
folded his strips
into sixths and
twelfths, quarters
and eighths or any
other fractions
where one of the
denominators is
double the other.

Wednesday: Equivalent Fractions

Mild:

1a. 2 blocks must be shaded.

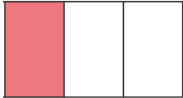
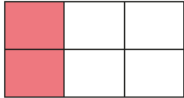
2a. 2; 2

3a. $\frac{2}{4}$

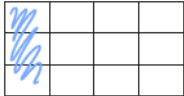
4a. $\frac{2}{8}$

Shade the diagrams to help you complete the equivalent fractions.

The first one has been done for you.

a)   $\frac{1}{3} = \frac{3}{6}$

b)   $\frac{1}{2} = \frac{5}{10}$

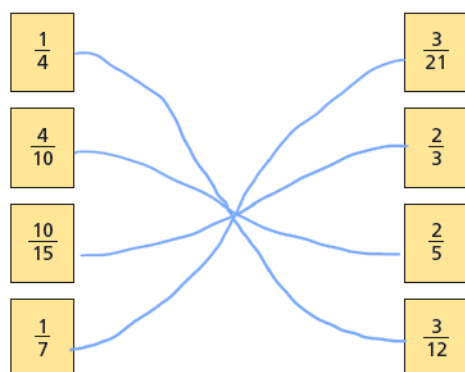
c)   $\frac{1}{4} = \frac{3}{12}$

Medium:

Draw a diagram to show that $\frac{3}{4} = \frac{6}{8}$



Match the equivalent fractions.



Complete the equivalent fractions.

a) $\frac{1}{5} = \frac{\boxed{2}}{10}$ d) $\frac{3}{10} = \frac{9}{\boxed{30}}$ g) $\frac{8}{12} = \frac{2}{\boxed{3}}$

b) $\frac{4}{5} = \frac{\boxed{8}}{10}$ e) $\frac{6}{8} = \frac{3}{\boxed{4}}$ h) $\frac{2}{\boxed{5}} = \frac{10}{25}$

c) $\frac{3}{10} = \frac{6}{\boxed{20}}$ f) $\frac{8}{12} = \frac{\boxed{2}}{3}$ i) $\frac{1}{\boxed{7}} = \frac{4}{28}$

Spicy:

9a. 3 blocks must be shaded.

10a. 5

11a. $\frac{5}{35}$, $\frac{3}{21}$ and $\frac{2}{14}$

12a. Various answers, for example: $\frac{1}{4}$ or $\frac{2}{8}$

Tommy is wrong. He has added two to the numerator and denominator each time. When you find equivalent fractions you either need to multiply or divide the numerator and denominator by the same number.

Possible answers:

$$\frac{1}{2} = \frac{3}{6}, \frac{1}{2} = \frac{4}{8},$$

$$\frac{1}{3} = \frac{2}{6}, \frac{1}{4} = \frac{2}{8},$$

$$\frac{3}{4} = \frac{6}{8}, \frac{2}{3} = \frac{4}{6}$$

Thursday:

Mild

1a. 4 parts make the whole. 1 part to complete the whole.

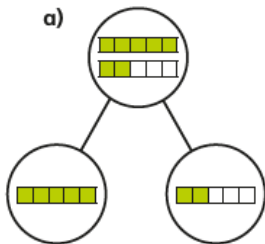
2a. $A = 1\frac{1}{2}$, $B = 2\frac{2}{4}$, $C = 1\frac{1}{3}$.

3a. False, the diagram represents one whole and one quarter.

4a. 4 pots planted with 1 seed left over.

I Complete the sentences.

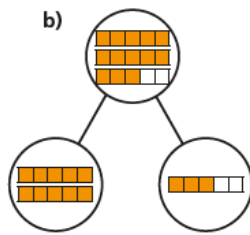
a)



There are 7 fifths altogether.

7 fifths = whole + fifths

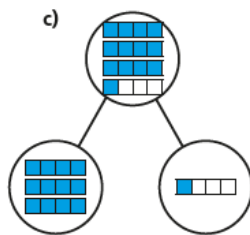
Medium



There are fifths altogether.

fifths = wholes +

fifths



There are quarters altogether.

quarters = wholes +

quarter

Shade the bar models to represent the fractions.

Complete the number sentences.



$$\frac{5}{3} = \boxed{1} \text{ whole} + \boxed{2} \text{ thirds} = \boxed{1\frac{2}{3}}$$



$$\frac{8}{3} = \boxed{2} \text{ wholes} + \boxed{2} \text{ thirds} = \boxed{2\frac{2}{3}}$$



$$\frac{8}{5} = \boxed{1} \text{ whole} + \boxed{3} \text{ fifths} = \boxed{1\frac{3}{5}}$$

3 Complete the statements.

a) $\frac{12}{2} = \boxed{6}$ wholes

e) $\frac{15}{3} = \boxed{5}$ wholes

b) $\frac{12}{4} = \boxed{3}$ wholes

f) $\frac{15}{5} = \boxed{3}$ wholes

c) $\frac{12}{6} = \boxed{2}$ wholes

g) $\frac{15}{4} = \boxed{3}$ wholes + $\boxed{3}$ quarters

d) $\frac{12}{3} = \boxed{4}$ wholes

h) $\frac{15}{2} = \boxed{7}$ wholes + $\boxed{1}$ half

Spicy

Whitney bakes 26 muffins.

Muffins are packed in boxes of 4

a) How many boxes can Whitney fill?



Whitney can fill $\boxed{6}$ boxes.

b) How many more muffins does Whitney need to fill another box?

Whitney needs $\boxed{2}$ muffins to fill another box.

Explain how you know.

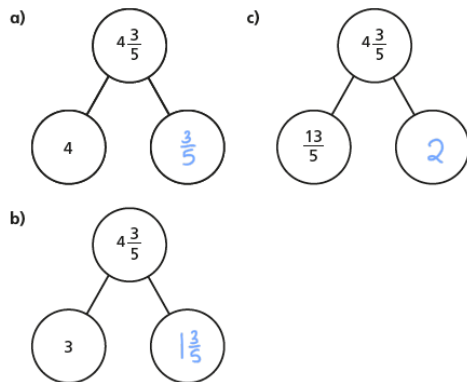
She will fill 6 boxes with 2 left over so another 2 are needed to fill the seventh box.

How does writing $\frac{26}{4}$ help you to answer this?

5 Write $<$, $>$ or $=$ to complete the statements.

- a) 2 wholes and 3 quarters $>$ 5 quarters
- b) 2 wholes and 3 quarters $<$ 15 quarters
- c) 2 wholes and 3 sixths $=$ 15 sixths
- d) 2 wholes and 3 eighths $>$ 15 eighths
- e) $\frac{15}{3}$ $>$ $\frac{15}{5}$
- f) $\frac{15}{3}$ $=$ $\frac{20}{4}$

6 Complete the part-whole models.



They eat 3 whole pizzas and 1 more slice.

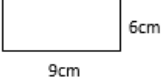
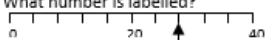
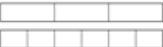
There are 2 wholes not 10
 $\frac{10}{5} = 2$ wholes
 $\frac{13}{5} = 2$ wholes and 3 fifths

I disagree with Rosie because both fractions are equivalent to 4

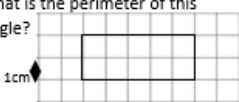
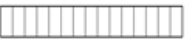
Children may choose to build both fractions using cubes, or draw bar models.

Friday - Challenge Day

Mild

A: Place Value, Add and Subtract		B: Multiply, Divide and Fractions		C: Measure and Problem Solving	
1. What is the missing number? 0 4 8 16	3:1 12	11. $28 \div 4 =$	3:10 7	23. Alfie is 1m 12cm tall. Zac is 91cm tall. How much taller is Alfie than Zac?	3:19 21cm
2. What is the 6 worth in this number? 361	3:2 60 (tens)	12. $8 \times 6 =$	3:10 48		
3. Write this number in numerals. four hundred and sixty two	3:3 462	13. Use $9 \times 6 = 54$ to solve: $9 \times 12 =$	3:11 108	22. What is the perimeter of this rectangle? 	3:20 30cm
4. What number is labelled? 	3:4 28	14. What is the missing number? $4 \times \square = 50 - 22$	3:12 7		
5. Make the largest number possible using the digits 6 4 8.	3:5 864	15. What is the missing number? 0.7 0.8 0.9 1.0	3:13 1.1	23. Cans of pop are 60p each. I have £2. How many cans of pop can I buy?	3:21 3
6. $603 - 10 =$	3:6 593	16. Circle $\frac{4}{1}$ of the marbles. 	3:14 4		
7. $723 - 312 =$	3:7 411	17. What is $\frac{1}{4}$ of 12?	3:15 3	24. Draw the hands to show twenty five minutes past eight.	3:22 Hands drawn
8. Circle the best estimate to $48 + 89$: 110 120 130	3:8 140	18. $\frac{1}{3} = \frac{2}{6}$ 	3:16 2		
9. One orange costs twenty pence. How much will five oranges cost?	3:9 £1 (100p)	19. Add the fractions. $\frac{2}{9} + \frac{5}{9}$	3:17 $\frac{7}{9}$	25. How many minutes are equal to 180 seconds?	3:24 3
10. What is the missing number? - 23 = 9	3:9 32	20. Write the smallest fraction. $\frac{1}{5} \frac{1}{6} \frac{1}{4} \frac{1}{2}$	3:18 $\frac{1}{6}$		

Medium and Spicy

A: Place Value, Add and Subtract		B: Multiply, Divide and Fractions		C: Measure and Geometry	
1. What is the missing number? 18 27 36 54	4:1 45	11. $66 \div 6 =$	4:9 11	21. There are 650 millilitres of liquid in a jug. How much more liquid needs to be added to make 1 litre?	4:19 350ml
2. What is the missing number? 49 63 70 77	4:1 56	12. Two factors of 32 add up to 33. What are they?	4:10 1, 32		
3. What is 1,000 more than 2,350?	4:2 3,350	13. $314 \times 7 =$	4:11 2,198	22. What is the perimeter of this rectangle? 	4:20 14cm
4. Round this number to the nearest 10: 3,275	4:2 3,280	14. In a class of 18 there are 2 girls for every 1 boy. How many are boys?	4:12 6		
5. What is $2 - 9$?	4:3 -7	15. $\frac{2}{3} - \frac{5}{1}$ 	4:13 1	23. At lunch, Kirsty has a starter and a main meal. She pays with a £20 note. How much change does she get? All Starters £4.95 All Mains £9.90	4:21 £5.15
6. What is the value of the 3 in this number? 3,296	4:4 3000	16. What is the missing number? 2.00 2.01 2.02 2.03	4:14 1.99	24. How would 6:15pm be shown on a 24 hour digital clock? 	4:22 18:15
7. Write the number 67 in Roman numerals.	4:5 LXVII	17. $\frac{5}{1} + \frac{8}{1}$	4:15 $\frac{13}{1}$		
8. $3,912 + 1,129 =$	4:6 5,041	18. Write 0.25 as a fraction.	4:16 $\frac{1}{4}$		
9. Write the sum to check $492 + 210 = 702$: $702 - \square = \square$	4:7 492, 210	19. $45 \div 10 =$	4:17 4.5	25. What is the special name for this type of triangle? 	4:23 Equilateral
10. I have £2. I spend £1.15 then 65p. How much do I have left?	4:8 20p	20. Round 5.6 to the nearest whole number.	4:18 6		