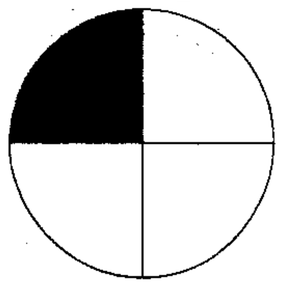
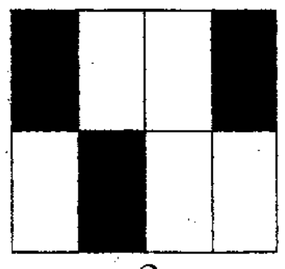
Fractions

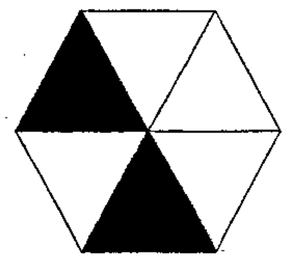
1. Look at the pictures and complete the following sums.

a. 

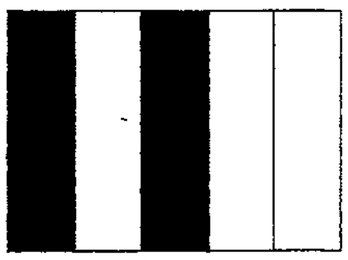
$\frac{1}{\square} + \frac{\square}{4} = \frac{\square}{4}$

b. 

$\frac{3}{\square} + \frac{\square}{8} = \frac{\square}{8}$

c. 

$\frac{2}{\square} + \frac{\square}{6} = \frac{\square}{6}$

d. 

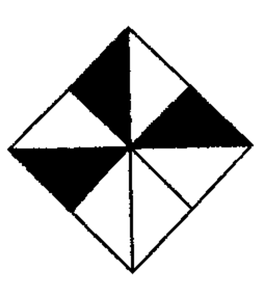
$\frac{2}{\square} + \frac{\square}{5} = \frac{\square}{5}$

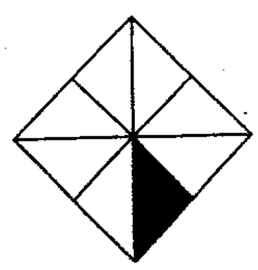
2. Fill in < or > or = in the place of *.

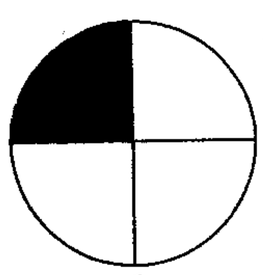
a. $\frac{1}{2}$ * $\frac{1}{4}$	b. $\frac{1}{3}$ * $\frac{1}{2}$	c. $\frac{1}{5}$ * $\frac{1}{8}$
d. $\frac{1}{7}$ * $\frac{1}{2}$	e. $\frac{1}{6}$ * $\frac{1}{3}$	f. $\frac{1}{4}$ * $\frac{1}{8}$
g. $\frac{1}{5}$ * 1 whole	h. $\frac{2}{4}$ * $\frac{1}{2}$	i. $\frac{2}{6}$ * $\frac{1}{3}$
j. $\frac{3}{6}$ * $\frac{1}{2}$	k. $\frac{2}{4}$ * $\frac{5}{8}$	l. $\frac{2}{3}$ * $\frac{2}{6}$
m. $\frac{3}{7}$ * $\frac{4}{8}$	n. $\frac{2}{8}$ * $\frac{1}{4}$	o. $\frac{2}{3}$ * $\frac{4}{6}$

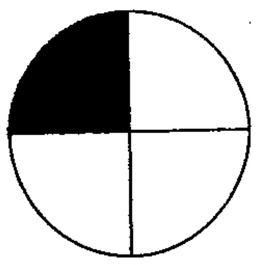
Adding fractions

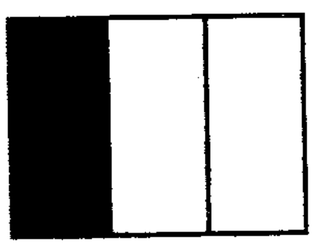
1. A Grade 4 class is painting designs for a mural at their school. Copy and colour in their designs to help you add the fractions.

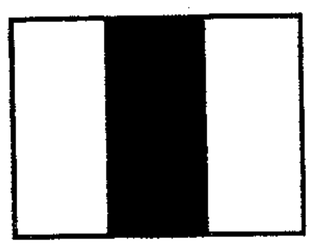
a. 

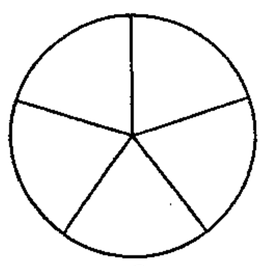
$\frac{3}{8}$ +  $\frac{1}{8}$ = $\frac{\square}{8}$

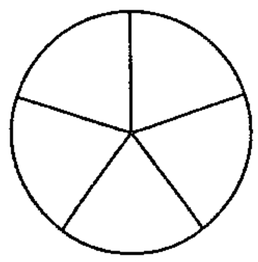
b. 

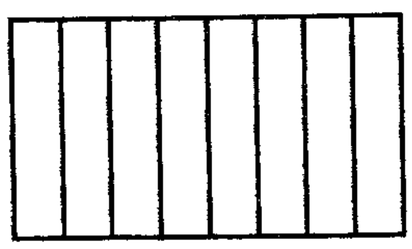
$\frac{1}{4}$ +  $\frac{1}{4}$ = $\frac{\square}{\square}$

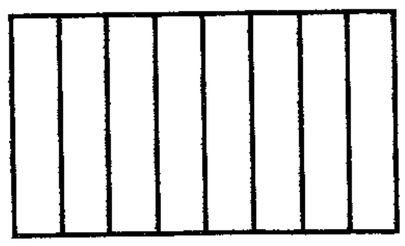
c. 

$\frac{1}{3}$ +  $\frac{1}{3}$ = $\frac{\square}{\square}$

d. 

$\frac{2}{5}$ +  $\frac{3}{5}$ = $\frac{\square}{\square}$

e. 

$\frac{2}{8}$ +  $\frac{5}{8}$ = $\frac{\square}{\square}$

2. Design shapes like the ones above to help you add the following fractions.

a. $\frac{2}{6} + \frac{3}{6} =$

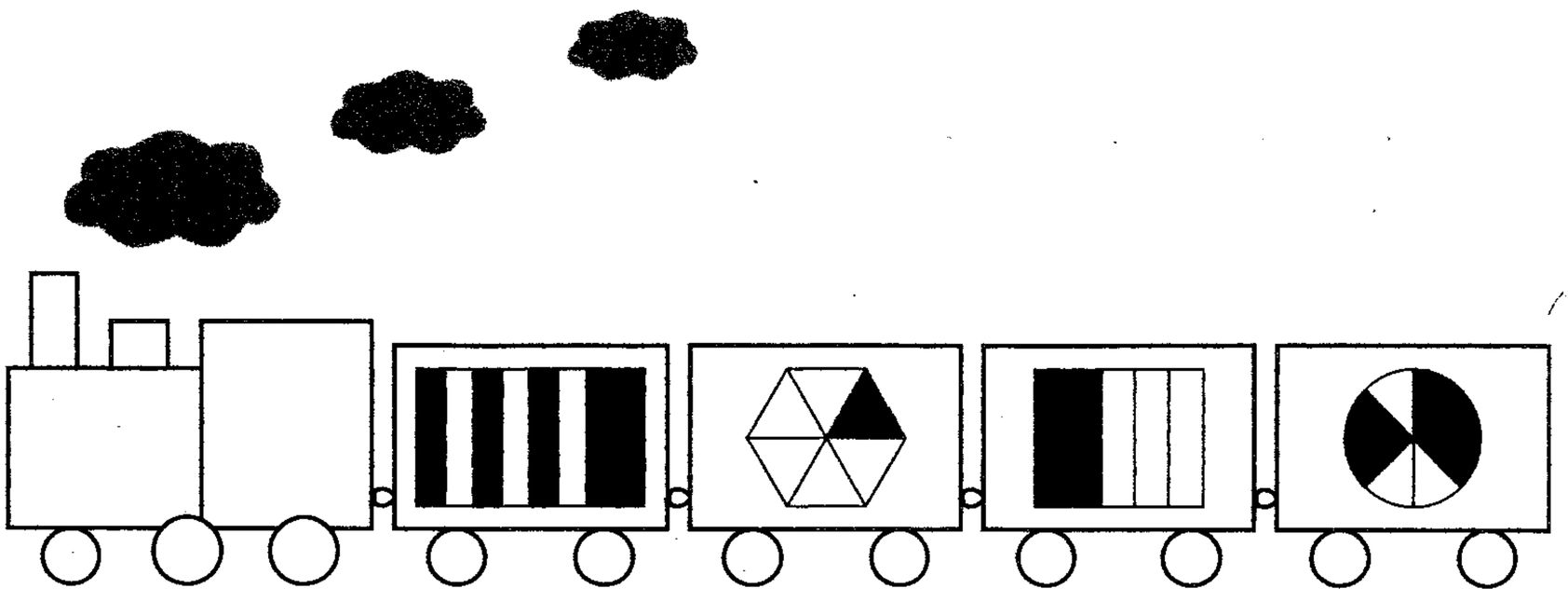
b. $\frac{1}{5} + \frac{3}{5} =$

c. $\frac{2}{7} + \frac{3}{7} =$

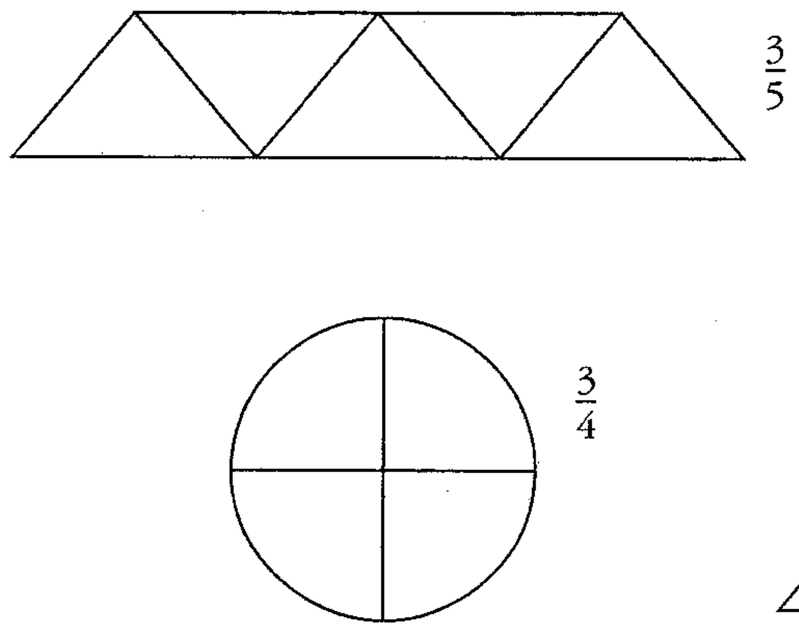
d. $\frac{1}{6} + \frac{3}{6} =$

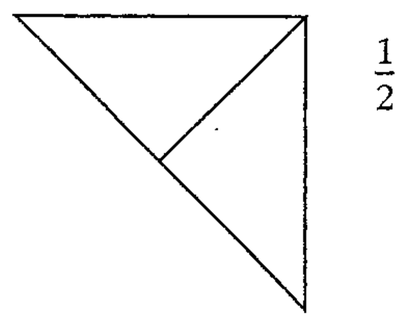
Fractions

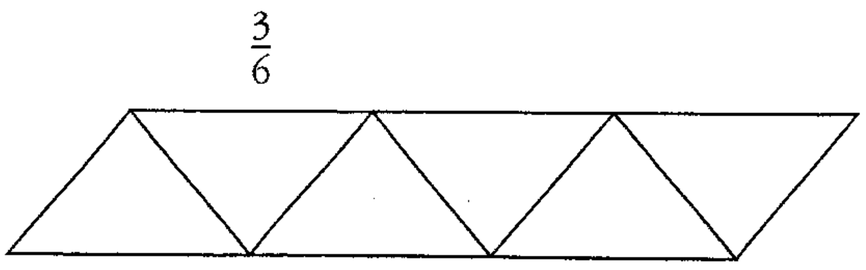
1. What fraction of the shapes on the side of the train has been coloured in?



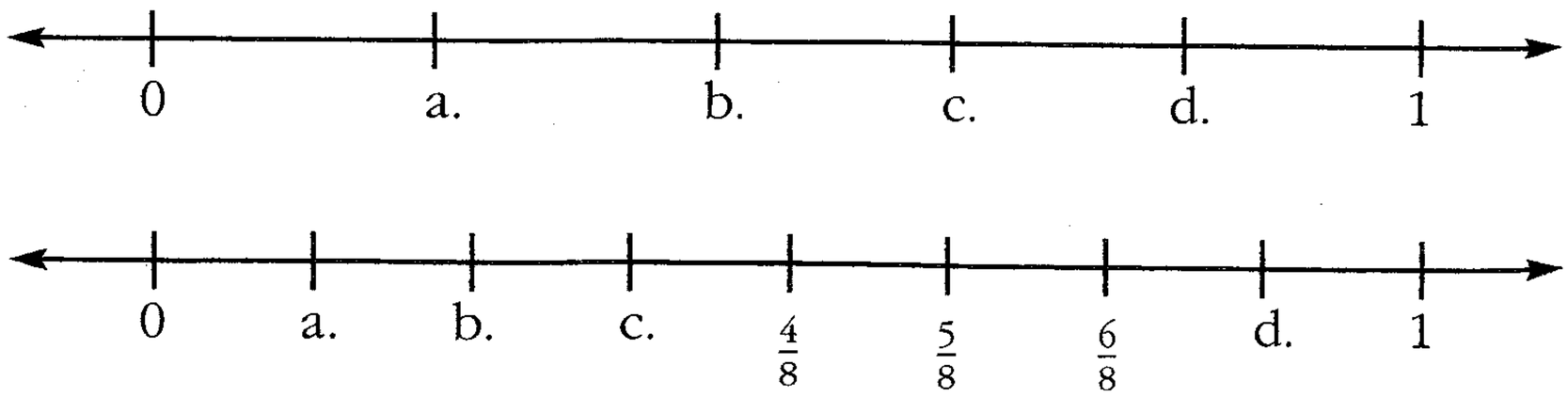
2. Copy the following shapes and colour in the fraction.



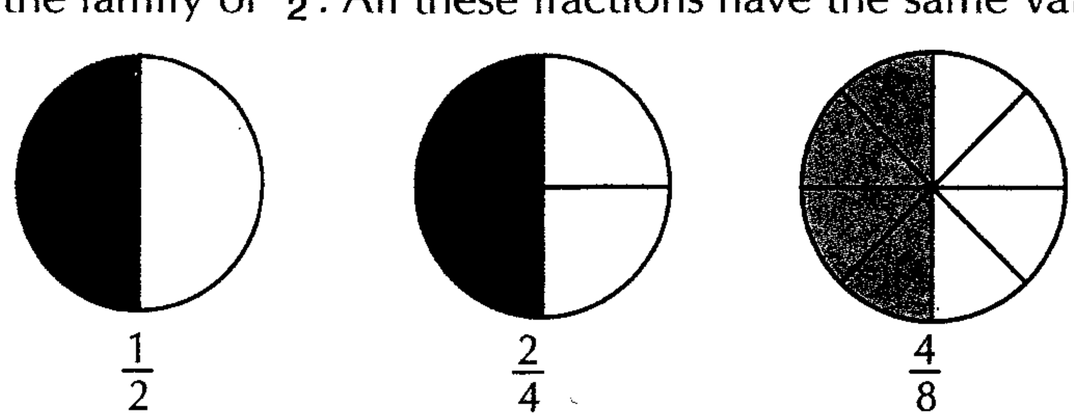


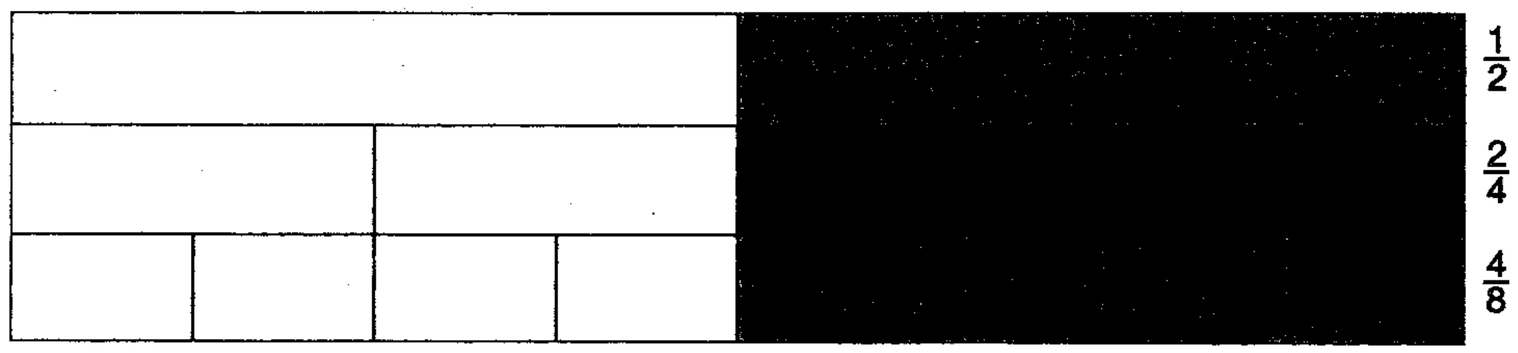


3. Copy the following number lines into your book. Write the fractions in the correct places.

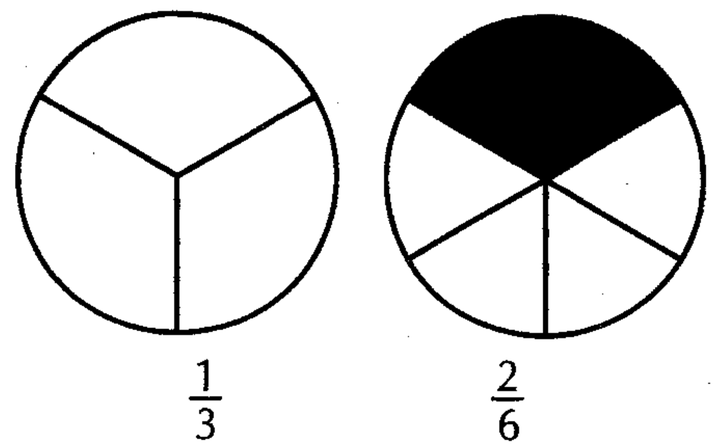


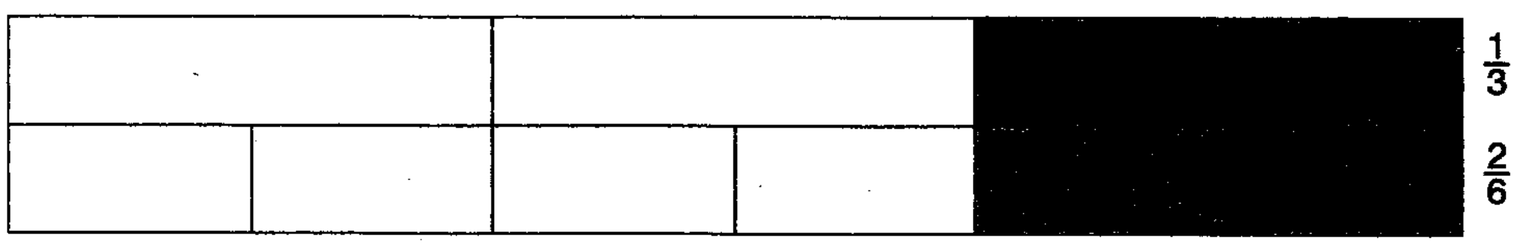
Here are some of the family of $\frac{1}{2}$. All these fractions have the same value of $\frac{1}{2}$.



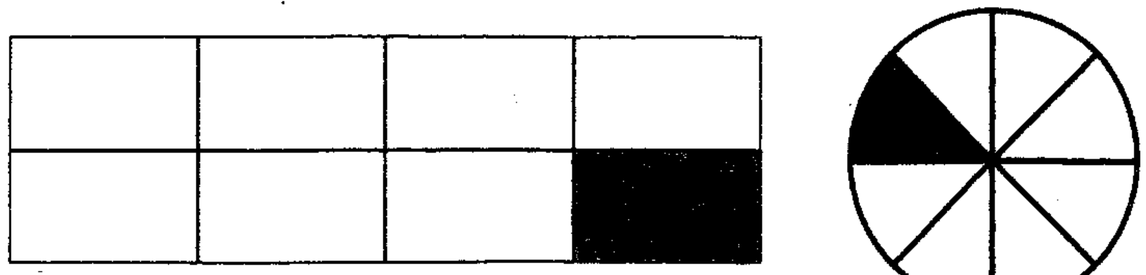


Here are some of the family of $\frac{1}{3}$. All of these fractions have the same value as $\frac{1}{3}$.





1. a) How many equal parts has each whole been divided into?



b) One equal part has been shaded in each drawing: 1 out of 8 parts = $\frac{1}{\square}$

Number patterns

1. Look at the number pattern: 2, 4, 6, 8, 10, ___.
   a. What number comes after 10?
   b. Why do you think so?

2. You can use the number pattern above to make a code like this.

2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O

32	34	36	38	40	42	44	46	48	50	52
P	Q	R	S	T	U	V	W	X	Y	Z

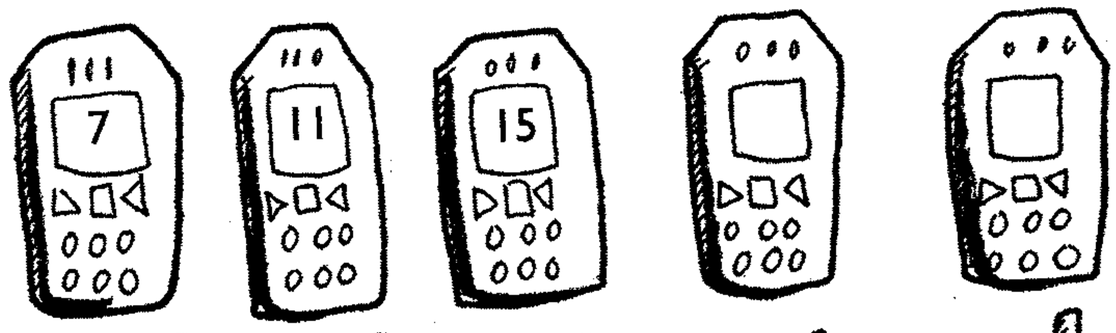
   a. What letter is 10?
   b. What letter is 36?
   c. What does this sentence say?

      38 16 2 24 24 46 10 38 16 2 36 10 24 42 28 6 16 ?

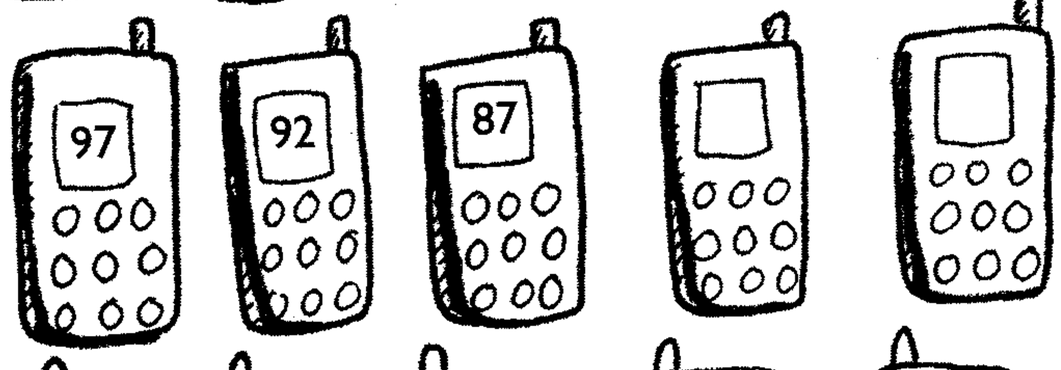
   d. Write this sentence in code: I look forward to that.
   e. Use the code to make up a message for a partner to read.

3. Fill in the missing numbers.

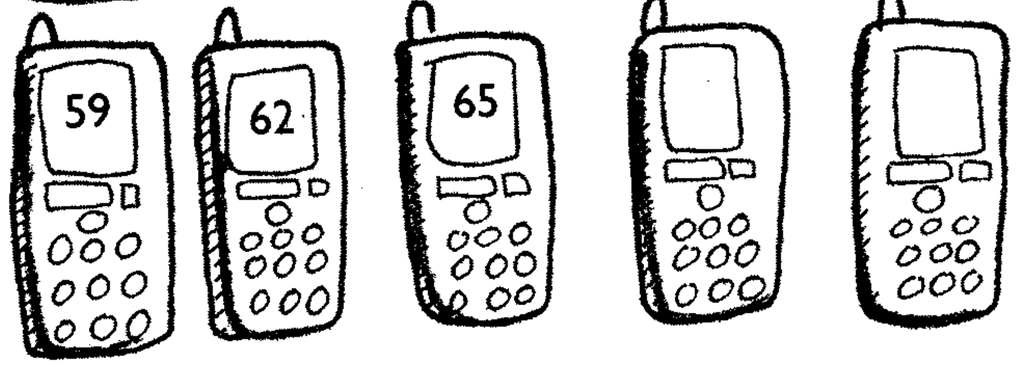
   a.



   b.



   c.



4. Describe the number patterns in each row of cell phone screens in your own words.

More fractions

1. Calculate the following.

   a. $\frac{1}{5} + \frac{3}{5} =$

   b. $\frac{1}{4} + \frac{2}{4} =$

   c. $\frac{3}{6} + \frac{1}{6} =$

   d. $\frac{2}{7} + \frac{5}{7} =$

   e. $\frac{5}{8} + \frac{2}{8} =$

   f. $\frac{2}{8} + \frac{2}{8} =$

2. Look at the fraction wall. Fill in the missing numbers in the sums.

1 whole							
$\frac{1}{2}$				$\frac{1}{2}$			
$\frac{1}{3}$			$\frac{1}{3}$			$\frac{1}{3}$	
$\frac{1}{4}$		$\frac{1}{4}$			$\frac{1}{4}$		$\frac{1}{4}$
$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$	
$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$	
$\frac{1}{7}$		$\frac{1}{7}$		$\frac{1}{7}$		$\frac{1}{7}$	
$\frac{1}{8}$		$\frac{1}{8}$		$\frac{1}{8}$		$\frac{1}{8}$	

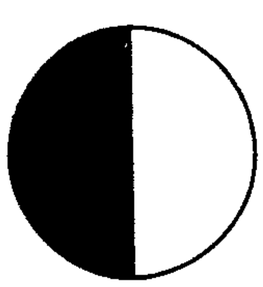
   a. $\frac{1}{2} = \frac{\square}{4} = \frac{\square}{6} = \frac{\square}{8}$

   b. $\frac{1}{3} = \frac{\square}{6}$

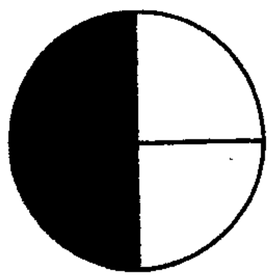
   c. $\frac{3}{4} = \frac{\square}{8}$

   d. $1 = \frac{\square}{2} = \frac{\square}{3} = \frac{\square}{4} = \frac{\square}{5} = \frac{\square}{6} = \frac{\square}{7} = \frac{\square}{8}$

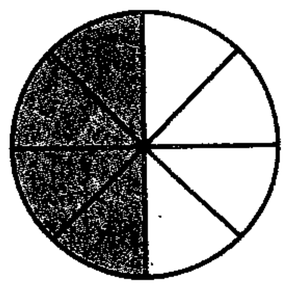
Here are some of the family of $\frac{1}{2}$. All these fractions have the same value of $\frac{1}{2}$.



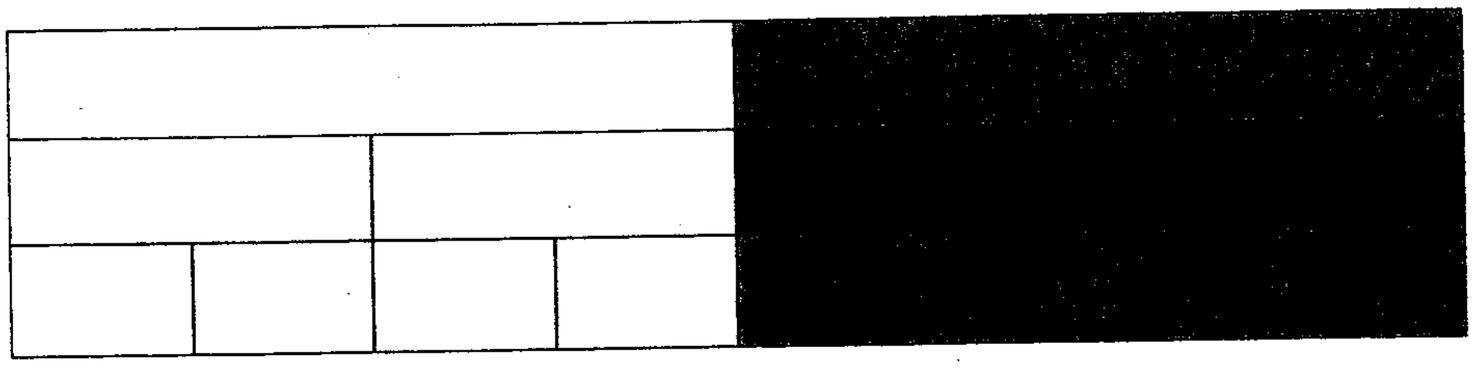
$\frac{1}{2}$



$\frac{2}{4}$



$\frac{4}{8}$

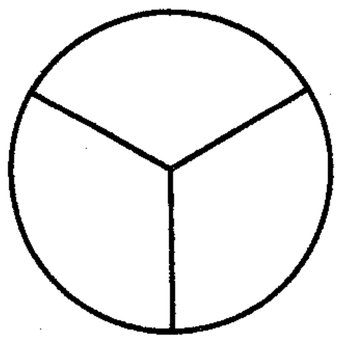


$\frac{1}{2}$

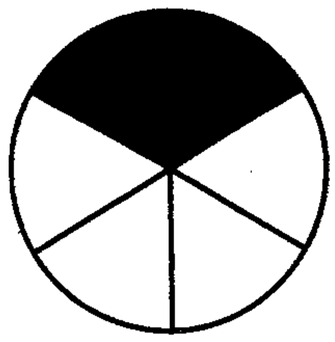
$\frac{2}{4}$

$\frac{4}{8}$

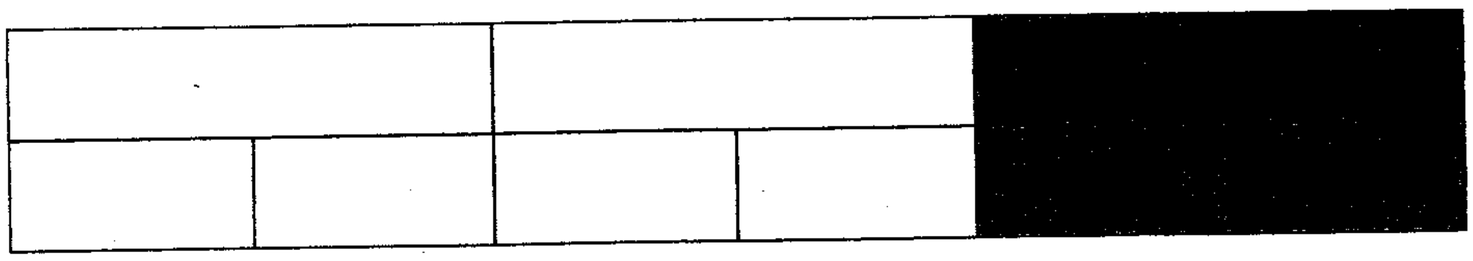
Here are some of the family of $\frac{1}{3}$. All of these fractions have the same value as $\frac{1}{3}$.



$\frac{1}{3}$



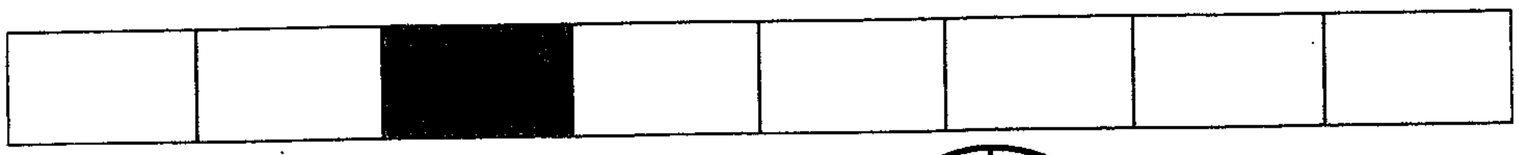
$\frac{2}{6}$

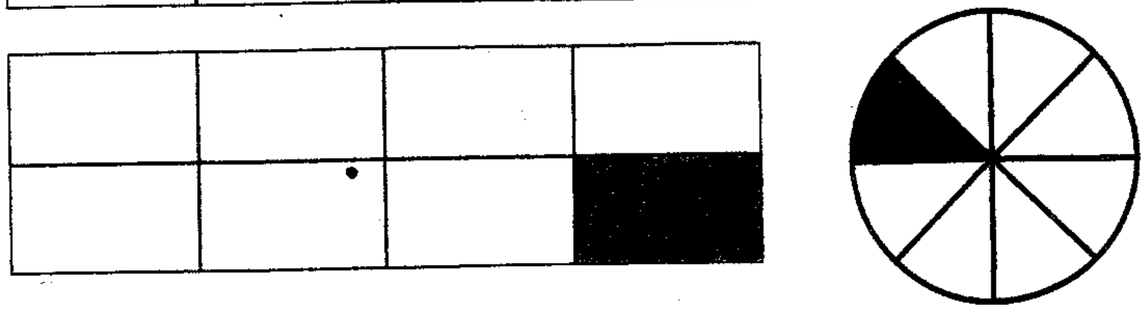


$\frac{1}{3}$

$\frac{2}{6}$

1. a) How many equal parts has each whole been divided into?

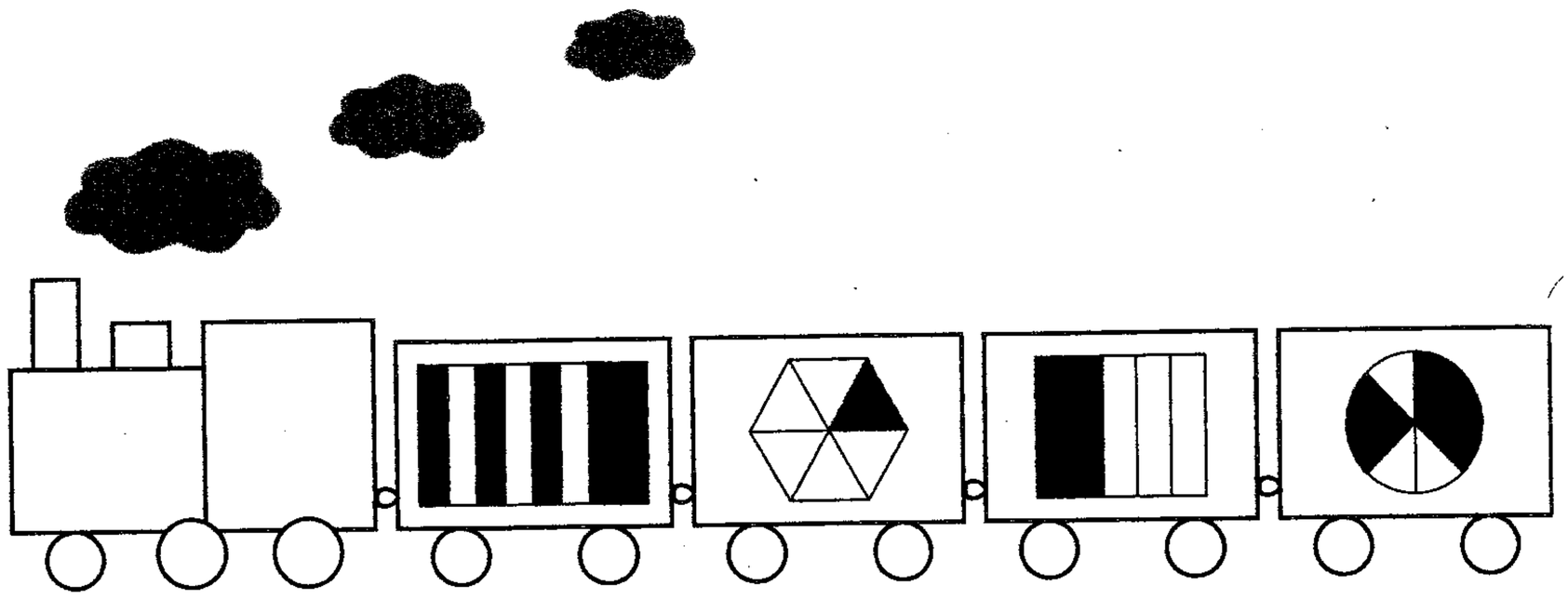




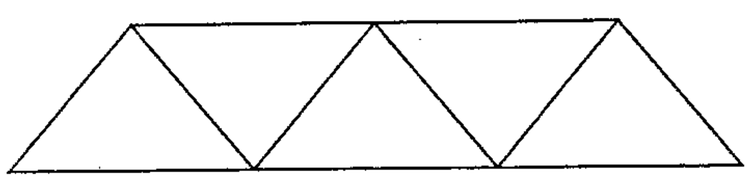
b) One equal part has been shaded in each drawing: 1 out of 8 parts = $\frac{1}{\square}$

Fractions

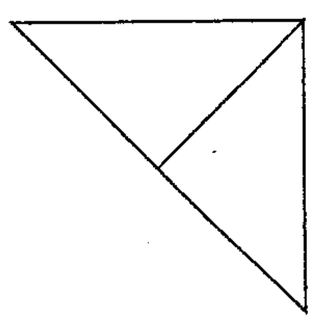
1. What fraction of the shapes on the side of the train has been coloured in?



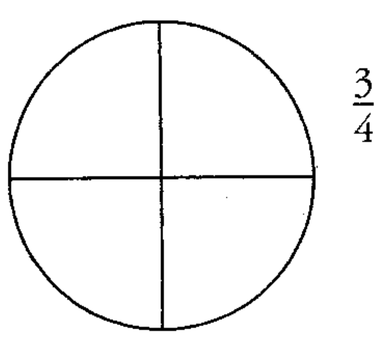
2. Copy the following shapes and colour in the fraction.



$\frac{3}{5}$

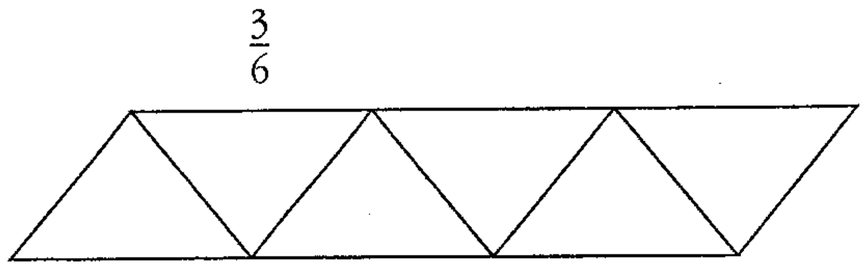


$\frac{1}{2}$

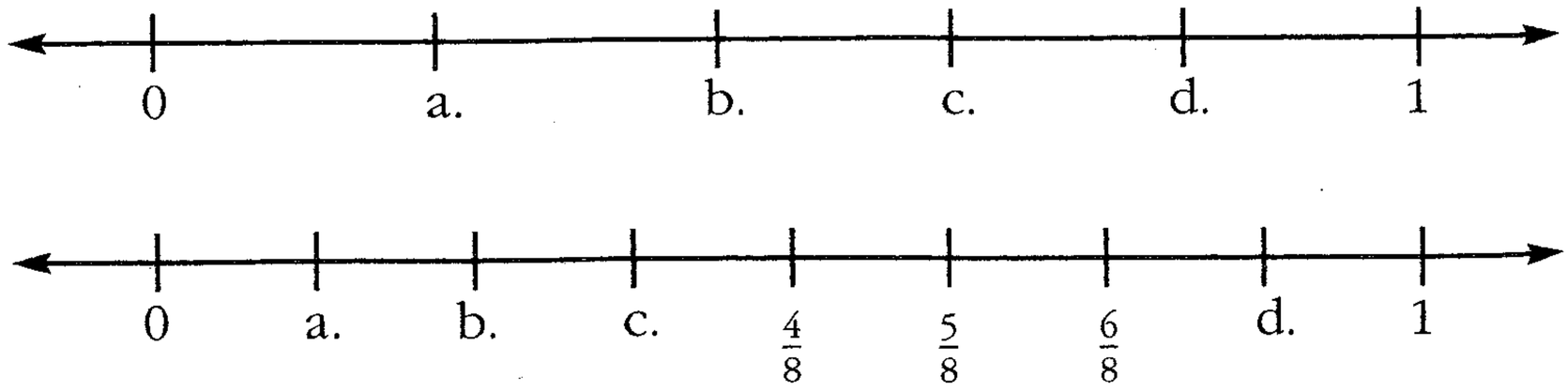


$\frac{3}{4}$

$\frac{3}{6}$



3. Copy the following number lines into your book. Write the fractions in the correct places.

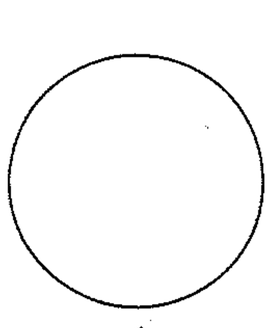


The fraction family

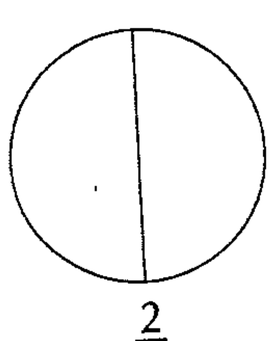
We have families.

Fractions have families too.
Here are some fraction families.
These are fractions that have the same value. They are called **equivalent** fractions.

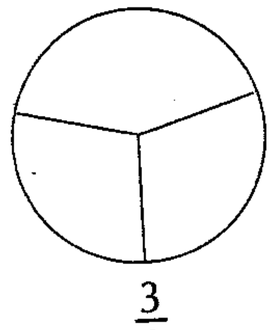
Here is the family of 1. All these fractions have the same value as 1.



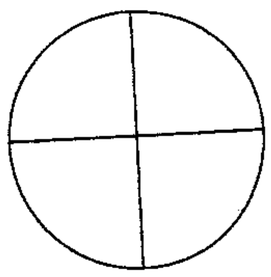
1



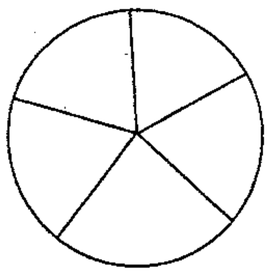
$\frac{2}{2}$



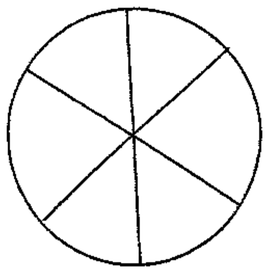
$\frac{3}{3}$



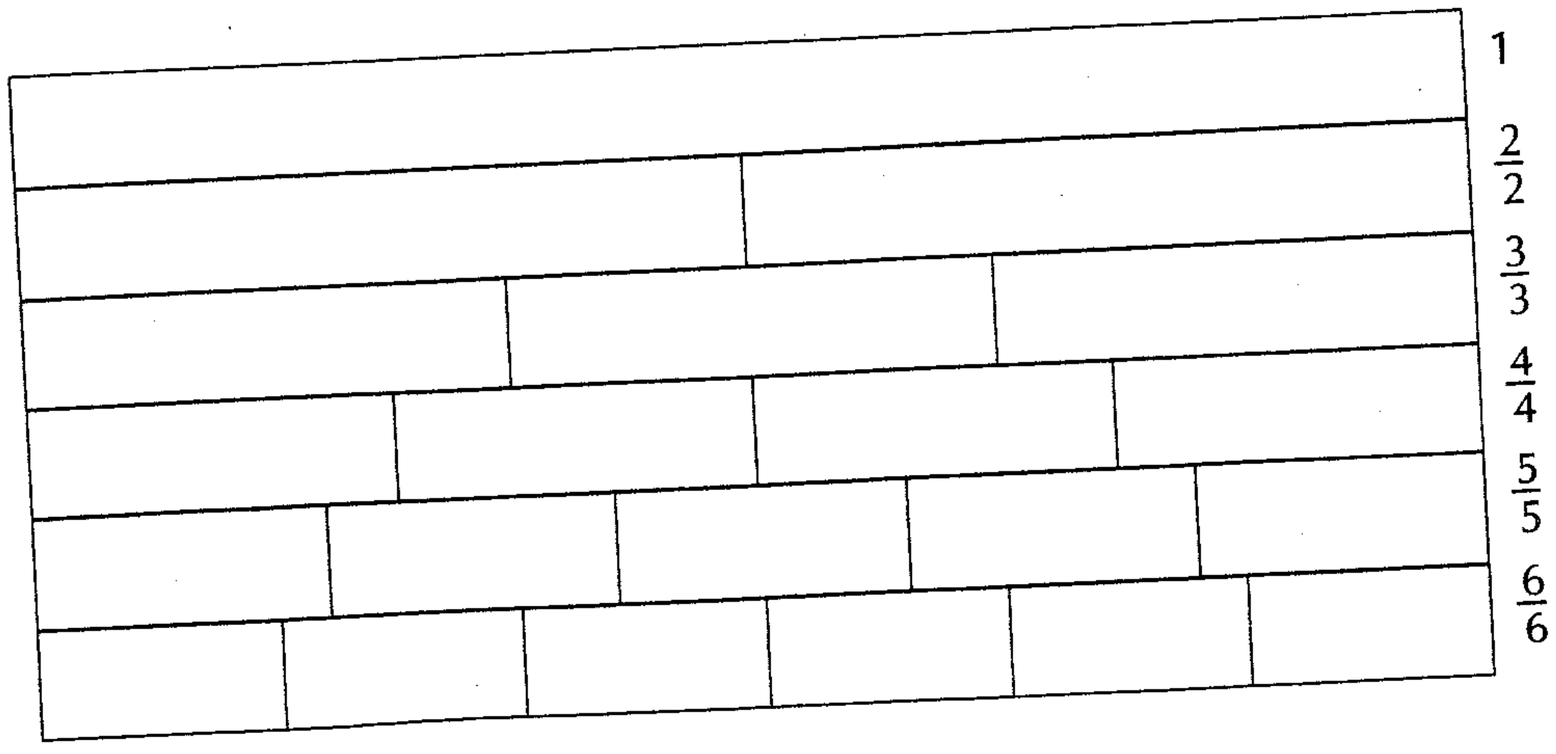
$\frac{4}{4}$



$\frac{5}{5}$

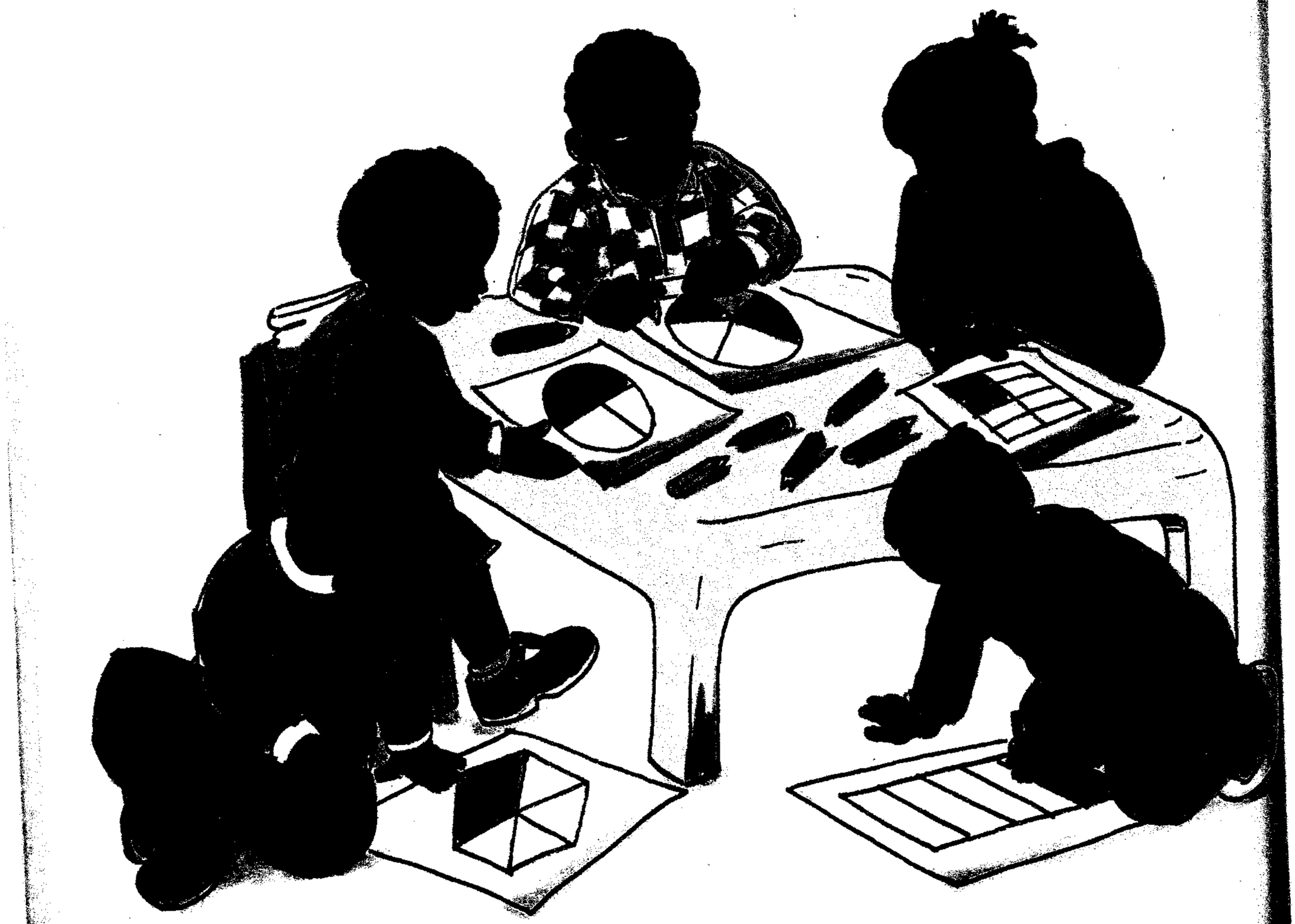


$\frac{6}{6}$



More fractions

1. Look at the shapes that these young children have coloured in.



2. Use the picture to help you calculate the following.
   a. Matthew shares his pizza with Sipho. Matthew eats $\frac{1}{5}$ and Sipho eats $\frac{2}{5}$. What fraction of the pizza did they eat altogether?
   b. Mashadi and Mandla use some playdough. Mashadi uses $\frac{2}{4}$ and Mandla uses $\frac{1}{4}$. What fraction of the playdough did they use?
   c. Adiel and Shamiela share a cooldrink. Adiel has $\frac{3}{8}$ and Shamiela has $\frac{2}{8}$ of the cooldrink. What fraction of the cooldrink did they drink?