31. Gifts of Biltong

1. Karl and Denise were both given biltong during the holidays. Karl ate a quarter of his, while Denise ate half of hers.

   Who ate the most biltong?

2. Karl's brother Shaun was also given some biltong. Shaun is much younger than Karl, so for every strip of biltong Shaun was given, Karl was given three.
   How many strips of biltong did Karl get if Shaun got 7?

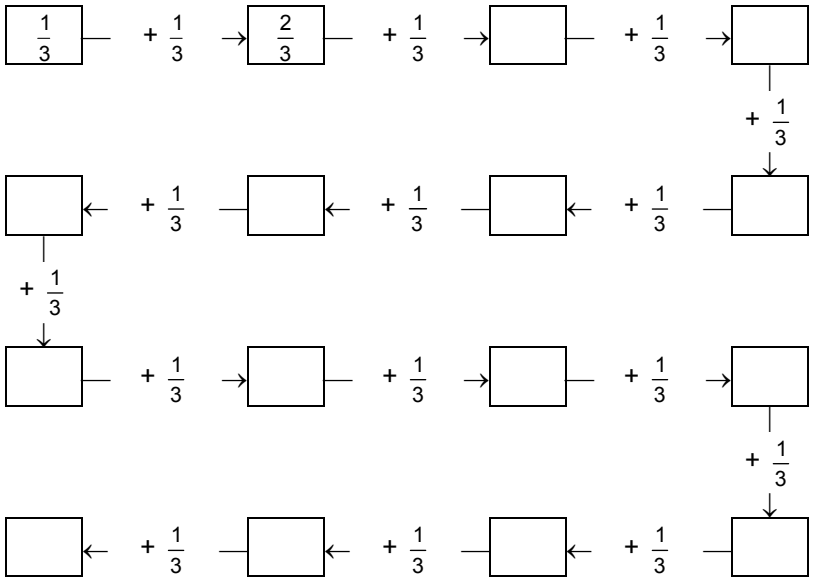
Teacher Notes:

Most learners will probably automatically decide that Denise ate more biltong because 'a half is more than a quarter'. This should be challenged through discussion with peers – it is possible that Karl ate more if he was given a lot more biltong than Denise. The objective of the first problem is that learners realise that comparison of fractions is not possible unless the whole is known.

The second problem is a simple ratio problem. Although the fraction is not explicitly stated, learners are introduced to the fraction as a ratio for the first time. Learners may immediately know that they must multiply 7 by 3, or they may draw a representation of the problem and allocate three strips to Karl for every strip that Shaun receives. They should be encouraged to use any method that makes sense to them.

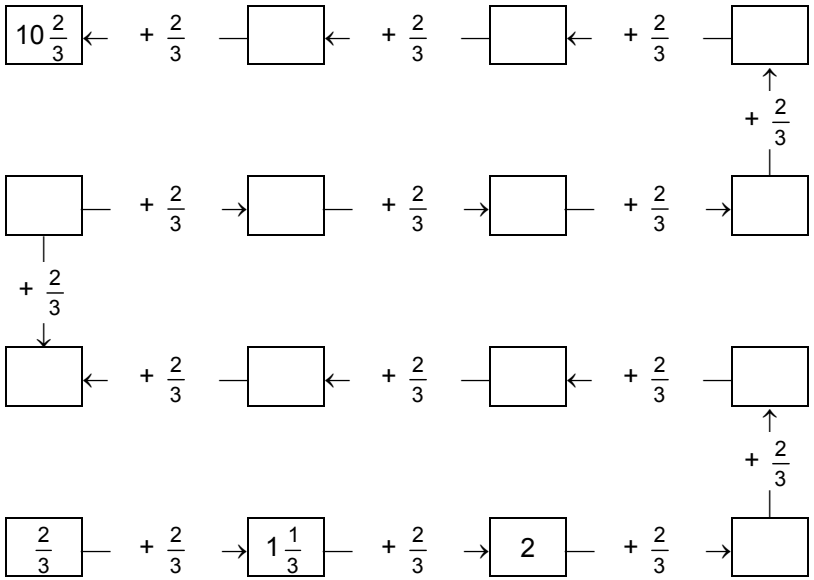
32. Chains

Complete this chain:



33. Egyptian Snake

Complete this chain:



Teacher Notes (Worksheet 32 and 33):

This chain can be very difficult to many learners. The teacher should check very carefully for learners who experience problems and should watch out for errors like $\frac{2}{3} + \frac{2}{3} = \frac{4}{6}$. *This is serious*. If some learners find the chain very difficult, it should be given again on the following day, with ample opportunity for discussion, making sketches, etc. in the group.

34. Minutes in Hours

Complete this table:

Number of hours	Number of minutes
$\frac{1}{6}$	10
$\frac{1}{5}$	
$\frac{1}{3}$	
$\frac{1}{4}$	
$\frac{1}{2}$	
1	60
	120
$1 + \frac{1}{2}$	
$1 + \frac{1}{3}$	
$1 + \frac{1}{4} + \frac{1}{4}$	
$\frac{1}{6} + \frac{1}{6}$	
$\frac{1}{3} + \frac{1}{6}$	

Do you notice anything?

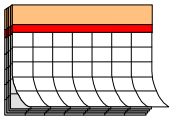
35. Kilometres in Minutes

It takes Susan 10 minutes to walk one kilometre.

Complete this table:

Number of kilometres	Number of minutes
1	10
$\frac{1}{2}$	
$\frac{1}{5}$	
2	
$2\frac{1}{2}$	
$1\frac{1}{2}$	
$1\frac{1}{5}$	
3	30
$3\frac{1}{2}$	
$\frac{1}{2} + \frac{1}{5}$	
$1\frac{1}{2} + \frac{1}{5}$	
$1\frac{1}{5} + \frac{1}{2}$	

36. Hours in Days



There are 24 hours in a day.

Complete this table:

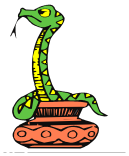
Number of days	Number of hours
1	24
2	
$\frac{1}{2}$	
$\frac{1}{4}$	
$\frac{1}{3}$	
$\frac{1}{6}$	4
$\frac{1}{4} + \frac{1}{4}$	120
$\frac{1}{6} + \frac{1}{6}$	
$\frac{1}{3} + \frac{1}{3}$	
$\frac{1}{2} + \frac{1}{6}$	
$\frac{1}{2} + \frac{1}{4}$	
$2\frac{1}{2}$	
5	
6	

Teacher Notes (Worksheet 34, 35 and 36):

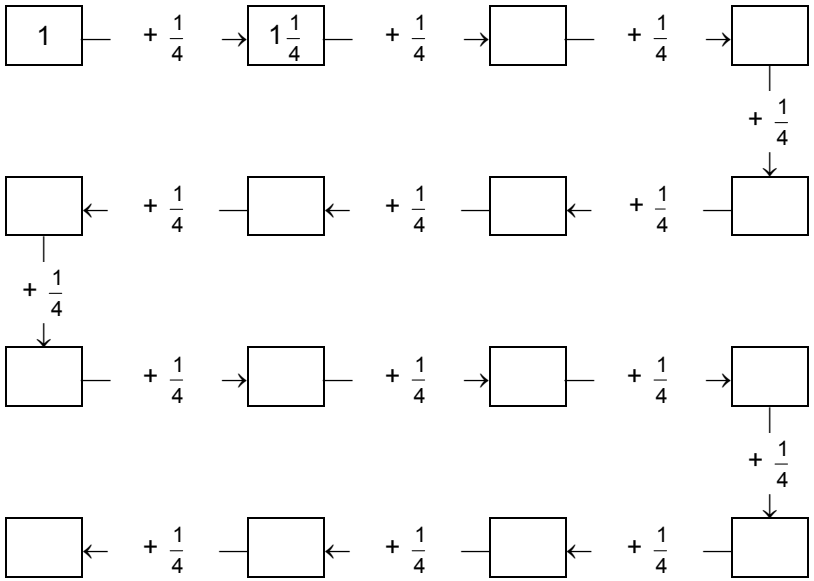
All the tables in these worksheets *suggest* that some fractional parts may also be equivalent to other fractions. It is important that learners do *not* simplify the fractions first when completing the tables. For example, in the days/hours table, when attempting to find $\frac{1}{2}+\frac{1}{6}$, they should add the answers they *have available* for $\frac{1}{2}$ a day and $\frac{1}{6}$ of a day. If they then notice that this answer is the same as that for $\frac{1}{3}+\frac{1}{3}$, that is sufficient. If there is time, they may consult their fraction walls to explain why this is so.

No formal addition of fractions should be done!

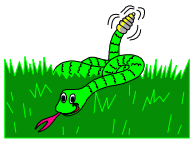
37. Indian Snake



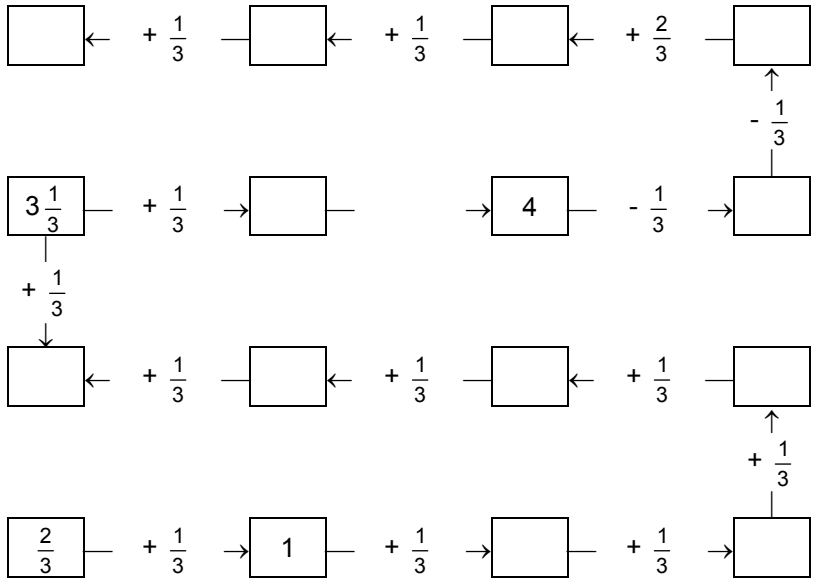
Complete this chain:



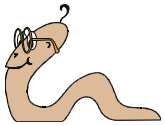
38. Rattlesnake II



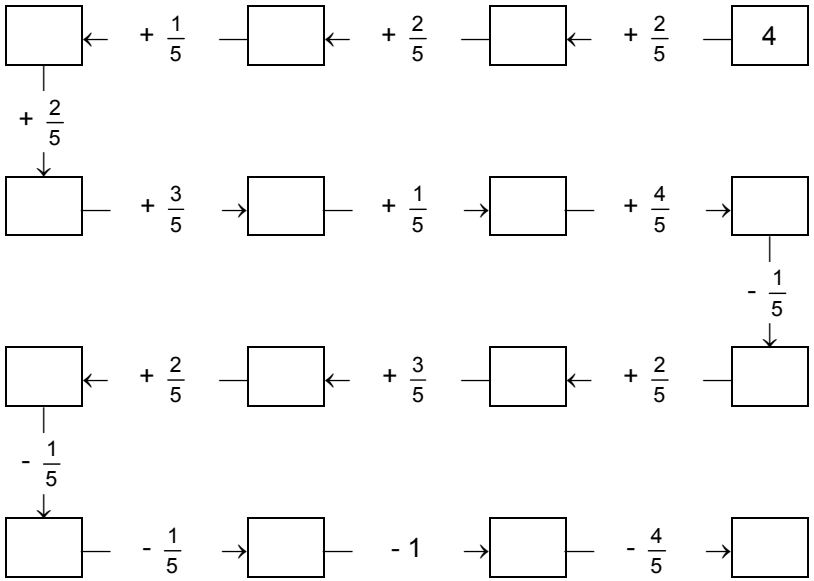
Complete this chain:



39. Intelligent Snake

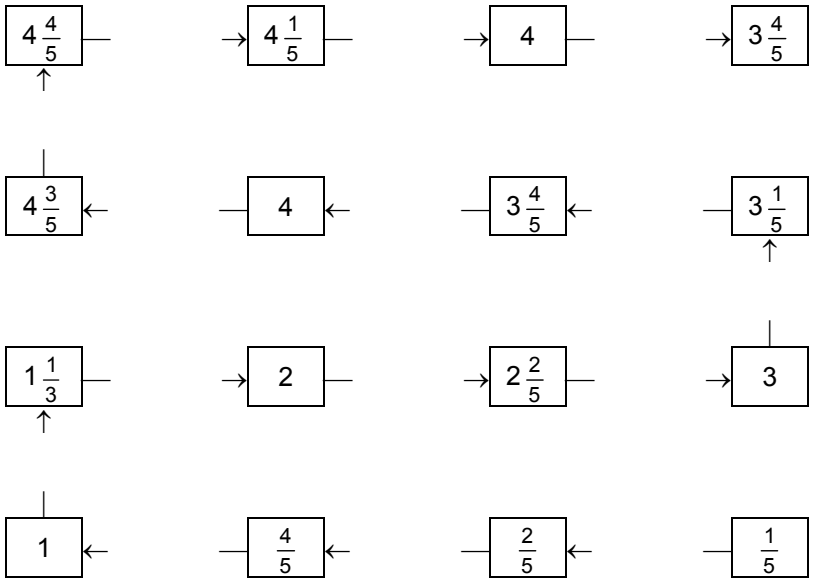


Complete this chain:



40. Crusader Snake

Complete this chain:



41. More Ribbons (Assessment)

1. Nomfundo has 1 metre of ribbon. She uses $\frac{1}{3}$ metre to wrap one package. How many packages can she wrap with 2 metre of ribbon?
2. Noxolo needs $\frac{1}{4}$ metre of ribbon to wrap a small package.
   (a) How many packages can she wrap with 2 metres of ribbon?

   (b) How many packages can she wrap with $1\frac{1}{2}$ metre of ribbon?

   (c) How many packages can she wrap with 1 metre of ribbon?

   (d) How many packages can she wrap with $\frac{1}{2}$ metre of ribbon?

   (e) How many packages can she wrap with $1\frac{1}{3}$ metre of ribbon?

Teacher Notes: (Assessment)

This activity is an assessment activity that is intended to diagnose problems that children might have with putting fractional parts together to form a whole. This is often required of them in division (grouping) problems.

What children might do:
Some children might tackle this problem by adding the fractional parts and may generalize very quickly after the first question. If they added $\frac{1}{4} + \frac{1}{4}$ and founded that it was equal to $\frac{1}{2}$ in the first question, they might use that knowledge in the following questions as well. If they are not yet at that level and begin again on each question, the teacher should **not** push them.

This activity then also serves as consolidation of putting together fractional parts to form wholes.

More Sharing (Consolidation)

1. Share 3 chocolate bars equally between 2 children. Show your answer with a picture. How much chocolate does each child get?

2. Share 4 chocolate bars equally between 3 children. Show your answer with a picture. How much chocolate does each child get?

3. Share 5 chocolate bars equally between 4 children. Show your answer with a picture. How much chocolate does each child get?

4. Share 6 chocolate bars equally between 5 children. Show your answer with a picture. How much chocolate does each child get?

5. Share 7 chocolate bars equally between 6 children. Show your answer with a picture. How much chocolate does each child get?

6. Thandi, Delta and Godfrey share one chocolate bar equally.
   (a) What do you call each one's share?
   (b) How much chocolate do Thandi and Delta get together? Show your answer with a picture.

7. Thandi, Delta, Godfrey, Piet and Sam share one chocolate bar equally.
   (a) What do you call each one's share?
   (b) How much chocolate do Thandi, Delta and Godfrey get together? Show your answer with a picture.

Sausages (Consolidation)

1. Share 1 sausage equally between 3 children. Show your answer with a picture. What do you call each child's share?

2. Share 1 sausage equally between 5 children. Show your answer with a picture. What do you call each child's share?

3. Share 1 sausage equally between 7 children. Show your answer with a picture. What do you call each child's share?

4. Share 1 sausage equally between 13 children. Show your answer with a picture. What do you call each child's share?

5. If 8 children have to share 9 sausages equally among themselves, how much sausage will each child get? Show your answer with a picture.

6. If five children have to share 12 sausages equally among themselves, how much sausage will each child get? Show your answer with a picture.

7. If five children have to share 14 sausages equally among themselves, how much sausage will each child get? Show your answer with a picture.

Teacher Notes:

These activities have been developed as consolidation for sharing problems and the naming and sharing of fractions and are NOT core material. If the teacher has picked up specific problems and feels that the children need some more exposure to sharing problems, he/she can make use of these activities.

It is however very important that the children can name fractions by now and are able to do these sharing problems. There is no use in continuing with the rest of the material before these concepts are stable and the teacher should therefore ensure that all the children are ready to continue.

TO PREVIOUS