## YEAR 1

## Addition \& Subtraction

- Related facts
- Compare number sentences

Block 1 - Week 4

## Lesson 1

## Step: Related facts

Practical

Use the counters to complete the fact families.

$$
\begin{aligned}
& \frac{4}{6}+6=\frac{6}{4}+\frac{10}{4}=\frac{10}{10}-\frac{4}{10}=6 \\
& 10-6=4
\end{aligned}
$$



Use the counters to complete the fact families.

$$
\begin{aligned}
& \frac{7}{3}+3=\frac{10}{7} \\
& \frac{3}{10}-\frac{7}{7}=\frac{3}{7} \\
& 10-3=7
\end{aligned}
$$

## Use the counters to complete the fact families.



$$
\begin{aligned}
& \frac{8}{4}+\frac{4}{8}=\frac{12}{12} \\
& \frac{4}{12}-\frac{8}{8}=\frac{4}{8} \\
& 12-4=8
\end{aligned}
$$

## Use the counters to complete the fact families.



$$
\begin{aligned}
& \frac{6}{8}+\frac{8}{6}=\frac{14}{14} \\
& \frac{14}{14}-\frac{6}{6}=\frac{8}{6} \\
& 14-8=6
\end{aligned}
$$

## Use the counters to complete the fact families.



$$
\begin{aligned}
& 9+7=\frac{76}{7} \\
& 7+9=16
\end{aligned}
$$

$$
16-9=7
$$

$$
16-7=9
$$

## Use the counters to complete the fact families.



$$
\begin{aligned}
& \frac{8}{5}+\frac{5}{8}=\frac{13}{13} \\
& \frac{5}{13}+\frac{8}{8}=\frac{5}{8} \\
& 13-5=8
\end{aligned}
$$

## Use the counters to complete the fact families.



$$
\begin{aligned}
& \frac{7}{8}+\frac{8}{7}=\frac{15}{15} \\
& \frac{15}{15}-\frac{7}{7}=\frac{8}{7} \\
& 15-8=7
\end{aligned}
$$

## Use the counters to complete the fact families.



$$
\begin{aligned}
& \frac{9}{8}+\frac{8}{9}+\frac{17}{9}=\frac{17}{8} \\
& \frac{17}{17}-\underline{9}=8 \\
& 17-8=9
\end{aligned}
$$

Spot the mistake. Explain your answer.


$$
\begin{aligned}
& \frac{5}{8}+\frac{8}{5}=\frac{13}{13} \\
& \frac{13}{13}-\frac{5}{8}=\frac{8}{5} \\
& 13-8=5
\end{aligned}
$$

The ten frames are showing $4+9=13$.
The stem sentences are showing $5+8=13$.

## Which calculations match the ten frames?



The calculations under column B match the ten frames.

## Lesson 2

Step: Related facts (Part-whole diagrams)

Use the base ten to complete the stem sentences.


$$
\begin{aligned}
& \frac{5}{6}+\frac{6}{5}=\frac{11}{11} \\
& \frac{11}{11}-\frac{5}{6}=\frac{6}{6} \\
& 11-6=5
\end{aligned}
$$

Use the base ten to complete the stem sentences.


$$
\begin{aligned}
& \frac{8}{6}+\underline{6}=\underline{14} \\
& \underline{6}+\underline{8}=14
\end{aligned}
$$

$$
14-8=6
$$

$$
14-6=8
$$

Use the base ten to complete the stem sentences.


$$
\begin{aligned}
& \frac{8}{4}+\frac{4}{8}=\frac{12}{12} \\
& \frac{12}{12}-\frac{8}{8}=\frac{4}{8} \\
& 12-4=8
\end{aligned}
$$

Use the base ten to complete the stem sentences.


$$
\begin{aligned}
& 9+\underline{7}=\underline{16} \\
& \underline{7}+\underline{9}=16
\end{aligned}
$$

$$
16-9=7
$$

$$
16-7=\underline{9}
$$

Use the base ten to complete the stem sentences.


$$
\begin{aligned}
& \frac{7}{5}+\frac{5}{7}=\frac{12}{12} \\
& \frac{5}{12}-\frac{7}{7}=\frac{5}{7} \\
& 12-5=7
\end{aligned}
$$

Use the base ten to complete the stem sentences.


$$
\begin{aligned}
& \frac{5}{8}+\frac{8}{5}=\frac{13}{13} \\
& \frac{8}{13}-\frac{5}{5}=\frac{8}{5} \\
& 13-8=5
\end{aligned}
$$

Use the base ten to complete the stem sentences.


$$
\begin{aligned}
& \underline{9}+\underline{5}=\frac{14}{5} \\
& \underline{5}+\underline{9}=\underline{14}
\end{aligned}
$$

$$
14-9=5
$$

$$
14-5=9
$$

Use the base ten to complete the stem sentences.


$$
\begin{aligned}
& \frac{8}{7}+\frac{7}{8}=\frac{15}{15} \\
& \frac{15}{15}-\frac{8}{8}=\frac{7}{8} \\
& 15-7=8
\end{aligned}
$$

Spot the mistake. Explain your answer.


$$
\begin{aligned}
& \frac{8}{7}+\frac{7}{8}=\frac{15}{15} \\
& \frac{15}{15}-\frac{8}{7}=\frac{7}{8} \\
& 15-7=8
\end{aligned}
$$

One part of the part-whole model is showing 9 cubes not 8 .

## How many fact families can you find?



| Addition | Addition | Subtraction | Subtraction |
| :---: | :---: | :---: | :---: |
| $0+7=7$ | $7+0=7$ | $7-0=7$ | $7-7=0$ |
| $1+6=7$ | $6+1=7$ | $7-1=6$ | $7-6=1$ |
| $2+5=7$ | $5+2=7$ | $7-2=5$ | $7-5=2$ |
| $3+4=7$ | $4+3=7$ | $7-3=4$ | $7-4=3$ |

## Lesson 3

## Step: Related facts <br> (Bar models)

Which calculations match the bar model?


Which calculations match the bar model?


| $14+5=9$ | $5+9=14$ |
| :--- | :--- |
| $9+5=14$ | $14+9=5$ |
| $5-9=14$ | $14-5=9$ |
| $14-9=5$ | $9-5=14$ |

Complete the stem sentences.

$$
\begin{aligned}
& 8+\frac{4}{4}=\frac{12}{12} \\
& \frac{4}{12}+\frac{8}{4}=\frac{12}{4} \\
& 12-4
\end{aligned}
$$

## Complete the stem sentences.

$$
\begin{aligned}
& \frac{8}{6}+6=\frac{6}{6} \\
& \frac{6}{14}-\frac{8}{8}=\frac{6}{6} \\
& 14-6=8
\end{aligned}
$$

Complete the stem sentences.

$$
\begin{aligned}
& 9+\frac{4}{4}=\frac{13}{13} \\
& \frac{4}{13}-\frac{9}{4}=\frac{4}{4}-4 \\
& 13-4
\end{aligned}
$$

Complete the stem sentences.

$$
\begin{aligned}
& \frac{8}{7}+\frac{7}{7}+\frac{15}{15} \\
& \frac{15}{15}-\frac{8}{7}=\frac{7}{8} \\
& \frac{7}{7}=8
\end{aligned}
$$

## Complete the stem sentences.

$$
\begin{aligned}
& \frac{5}{6}+6=\frac{11}{6}+\frac{5}{11}=\frac{5}{6} \\
& \frac{11}{11}-6 \\
& \hline 6
\end{aligned}
$$

## Complete the stem sentences.

$$
\begin{aligned}
& \frac{8}{9}+\frac{9}{9}+\frac{17}{8}=\frac{17}{9} \\
& \frac{17}{17}-\frac{8}{9}=\frac{9}{8}
\end{aligned}
$$



Is Ben correct?
If not, what mistake might Ben have made?
No Ben is not correct, he has mistaken the missing number for the answer. $8+6=14$.

Use the number frames to complete the bar model.


List the related facts.

$$
9+4=13
$$

$$
9+4=13
$$

$$
13-9=4
$$

$$
13-4=9
$$

## Lesson 4

## Step: Comparing number sentences

Practical

Which card will correctly compare the number sentence?


Which card will correctly compare the number sentence?


Which card will correctly compare the number sentence?

$6+9$



16-3

Which card will correctly compare the number sentence?
is more than
$7+8$
is less than
19-5
is equal to

Which card will correctly compare the number sentence?


Which card will correctly compare the number sentence?


Which card will correctly compare the number sentence?


True or false? The comparison is correct.


False, $9+7=16$ which is more than $6+8=14$.
The answer should be less than. How could you make it correct?

Complete the number sentence comparison to make it true.


Can you think of any more answers?

## Lesson 5

Step: Subtraction - Crossing 10 (5)

## RECAP:

Which card will correctly compare the number sentence?

## is more than



$$
5+3
$$

is less than

is equal to

## RECAP:

Which card will correctly compare the number sentence?


Which card will correctly compare the number sentence?

is more than
is less than
is equal to

Which card will correctly compare the number sentence?

is more than
is less than
is equal to

Which card will correctly compare the number sentence?

is more than
is less than
is equal to

Compare the number sentences using $>$, < or $=$.

$$
\begin{gathered}
5+9 \\
14 \\
6+9 \\
15 \\
15
\end{gathered}
$$

Compare the number sentences using $>$, < or $=$.

$$
\begin{array}{cc}
3+8 & < \\
11 & 12-2 \\
16-3 & > \\
13 & 5+7 \\
13
\end{array}
$$

Compare the number sentences using $>$, < or $=$.

$8+8>9+6$
 15

Using the digit cards once, complete the stem sentences so the comparisons are correct.


Using the digit cards once, complete the stem sentences

$$
\begin{aligned}
& \text { 14-3 } \\
& <7+5 \\
& 5+4=16-7 \\
& 15-3>8+3
\end{aligned}
$$

## so the comparisons are correct.

## I can put a 3 in the space to

 make the comparison true.
## $13-2<9+3$

Is Kat correct?
Explain your answer.
Yes Kat is correct. $13-2=11$ which is $<9+3=12$.

What numbers could make the story true? List all possibilities.

Mo has 17 grapes and eats 4 of them.

Jack has 9 grapes.
He then gets $\qquad$ more.

Jack has less grapes than Mo.

Jack has either 1, 2, 3 or 0 more grapes.

