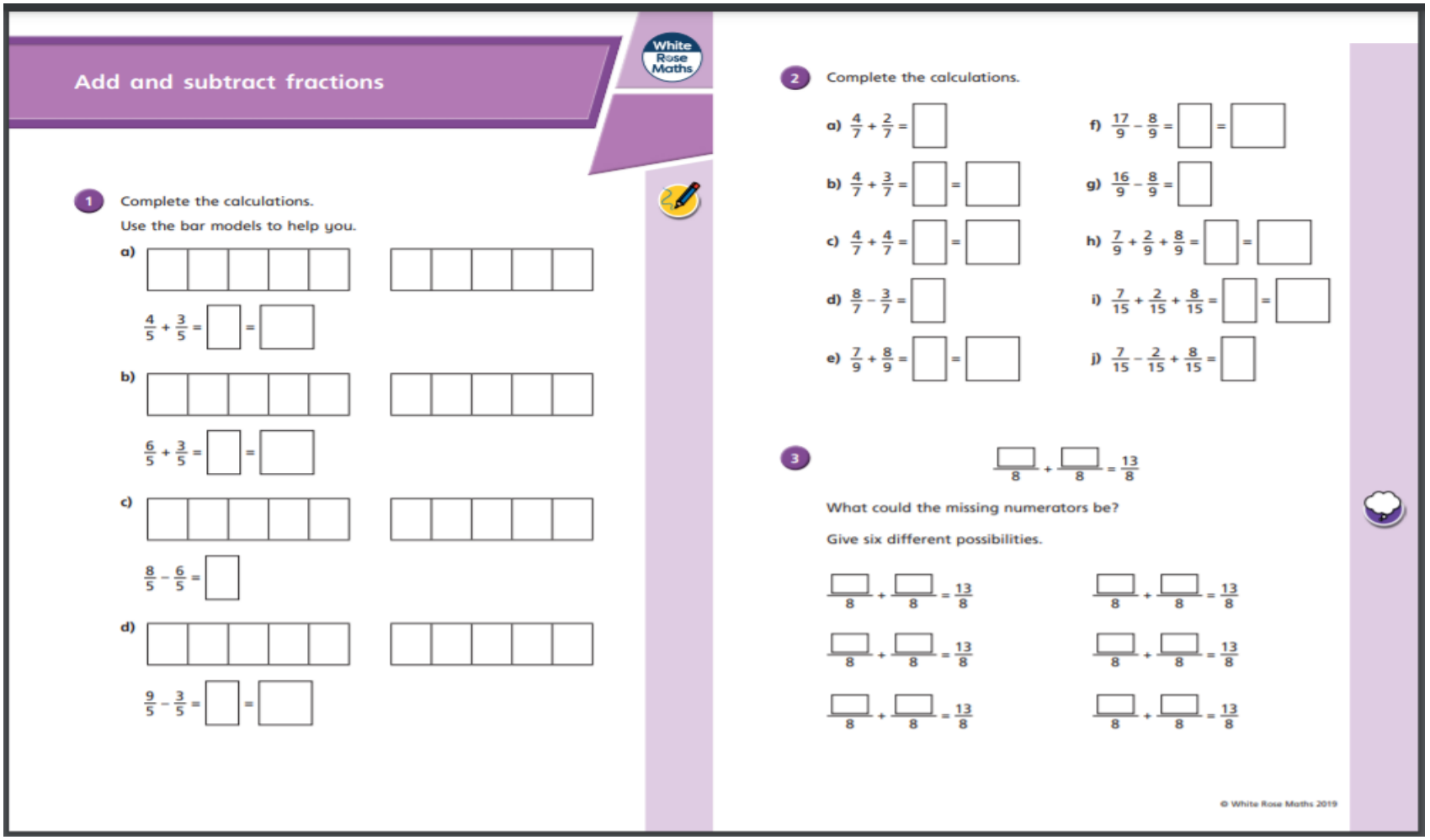
Week Commencing Monday 22nd February

Maths

Monday



Add and subtract fractions

1 Complete the calculations.

Use the bar models to help you.

a) $\frac{4}{5} + \frac{3}{5} = \square = \square$

b) $\frac{6}{5} + \frac{3}{5} = \square = \square$

c) $\frac{8}{5} - \frac{6}{5} = \square$

d) $\frac{9}{5} - \frac{3}{5} = \square = \square$

2 Complete the calculations.

a) $\frac{4}{7} + \frac{2}{7} = \square$

b) $\frac{4}{7} + \frac{3}{7} = \square = \square$

c) $\frac{4}{7} + \frac{4}{7} = \square = \square$

d) $\frac{8}{7} - \frac{3}{7} = \square$

e) $\frac{7}{9} + \frac{8}{9} = \square = \square$

f) $\frac{17}{9} - \frac{8}{9} = \square = \square$

g) $\frac{16}{9} - \frac{8}{9} = \square$

h) $\frac{7}{9} + \frac{2}{9} + \frac{8}{9} = \square = \square$

i) $\frac{7}{15} + \frac{2}{15} + \frac{8}{15} = \square = \square$

j) $\frac{7}{15} - \frac{2}{15} + \frac{8}{15} = \square$

3 $\frac{\square}{8} + \frac{\square}{8} = \frac{13}{8}$

What could the missing numerators be?

Give six different possibilities.

$\frac{\square}{8} + \frac{\square}{8} = \frac{13}{8}$ $\quad$ $\frac{\square}{8} + \frac{\square}{8} = \frac{13}{8}$

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4 Dora has $2\frac{3}{8}$ litres of juice.

She pours out $\frac{9}{8}$ litres of juice.

How many litres of juice does she have left?

Dora has ☐ litres left.

5 Fill in the missing numerators.

a) $\frac{3}{8} + \frac{\square}{8} = \frac{13}{8}$

b) $\frac{13}{8} - \frac{\square}{8} = \frac{7}{8}$

c) $\frac{13}{8} - \frac{\square}{8} = 1$

d) $\frac{11}{9} + \frac{\square}{9} = \frac{22}{9} = 2\frac{\square}{9}$

e) $\frac{11}{9} + \frac{\square}{9} = \frac{\square}{9} = 2\frac{2}{9}$

f) $\frac{22}{9} - \frac{\square}{9} = \frac{\square}{9} = 2\frac{2}{9}$

g) $\frac{4}{7} + \frac{\square}{7} + \frac{4}{7} = 2$

h) $\frac{5}{7} + \frac{\square}{7} + \frac{5}{7} = 2$

i) $\frac{6}{7} + \frac{\square}{7} + \frac{6}{7} = 2$

j) $\frac{14}{7} + \frac{\square}{7} + \frac{4}{7} = 3$

k) $\frac{15}{7} + \frac{\square}{7} + \frac{5}{7} = 3$

l) $\frac{16}{7} + \frac{\square}{7} + \frac{6}{7} = 4$

Compare answers with a partner. What do you notice?

6 Here are some fraction cards.

$\frac{9}{8}$	$\frac{13}{8}$	$\frac{1}{8}$	$\frac{7}{8}$	$\frac{3}{8}$	$1\frac{7}{8}$

Use the cards to write pairs of fractions with a total of 2

☐ + ☐ = 2

☐ + ☐ = 2

☐ + ☐ = 2

7 Annie and Dexter both have a skipping rope.

Annie's rope is $\frac{3}{4}$ m shorter than Dexter's rope.

The ropes are $\frac{13}{4}$ m altogether.

How long is each skipping rope?

Annie's rope is ☐ m long. Dexter's rope is ☐ m long.

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Tuesday 23rd February

Add fractions within 1

1 Complete the additions.

Use the bar models to help you.

a)

$\frac{1}{2} + \frac{1}{6} = \square$

b)

$\frac{1}{3} + \frac{1}{6} = \square$

c)

$\frac{2}{3} + \frac{1}{6} = \square$

2 Match the additions that have the same answer.

$\frac{3}{4} + \frac{1}{12}$	$\frac{10}{12} + \frac{1}{12}$
$\frac{2}{3} + \frac{1}{12}$	$\frac{6}{12} + \frac{1}{12}$
$\frac{5}{6} + \frac{1}{12}$	$\frac{9}{12} + \frac{1}{12}$
$\frac{1}{2} + \frac{1}{12}$	$\frac{8}{12} + \frac{1}{12}$

3 Here are two jugs.

One jug contains $\frac{5}{18}$ litres of water.

The other jug contains $\frac{4}{9}$ litres of water.

How many litres of water are there altogether?

There are $\square$ litres of water altogether.

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4 a) Complete the calculations.

$\frac{1}{5} + \frac{1}{10} = \square$

$\frac{2}{5} + \frac{1}{10} = \square$

$\frac{3}{5} + \frac{1}{10} = \square$

$\frac{4}{5} + \frac{1}{10} = \square$

$\frac{1}{16} + \frac{5}{32} = \square$

$\frac{1}{8} + \frac{5}{32} = \square$

$\frac{1}{4} + \frac{5}{32} = \square$

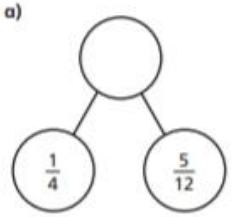
$\frac{1}{2} + \frac{5}{32} = \square$

b) Can you spot any patterns? Talk to a partner about it.

c) What calculation would come next in each set?

5 Complete the part-whole models.

a)



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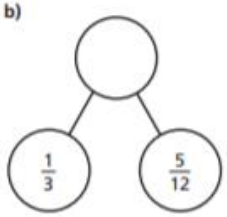
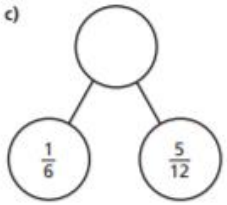
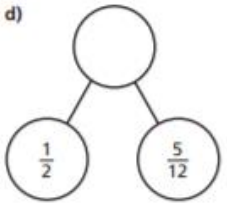


c)



d)



6 $\frac{\square}{8} + \frac{\square}{16} = \frac{7}{8}$

What could the missing numerators be?

Give six different possibilities.

$\frac{\square}{8} + \frac{\square}{16} = \frac{7}{8}$ $\quad \frac{\square}{8} + \frac{\square}{16} = \frac{7}{8}$ $\quad \frac{\square}{8} + \frac{\square}{16} = \frac{7}{8}$

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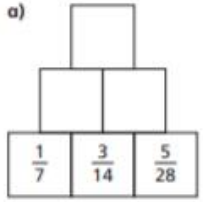
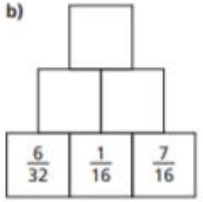
7 Complete the addition pyramids.

a)



b)



c) What fraction is equivalent to both of the fractions at the top of the pyramids?

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Wednesday 24th February

Add 3 or more fractions

1 Complete the additions.

Use the bar models to help you.

a)

$\frac{1}{2} + \frac{1}{4} + \frac{1}{12} = \square$

b)

$\frac{1}{2} + \frac{1}{3} + \frac{1}{12} = \square$

c)

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

d)

$\frac{1}{3} + \frac{1}{4} + \frac{1}{6} = \square$

2 Complete the additions.

a) $\frac{1}{5} + \frac{3}{10} + \frac{7}{20} = \square$

b) $\frac{1}{16} + \frac{5}{32} + \frac{3}{8} = \square$

c) $\frac{1}{4} + \frac{5}{24} + \frac{5}{12} = \square$

d) $\frac{3}{16} + \frac{1}{2} + \frac{1}{4} = \square$

e) $\frac{1}{2} + \frac{5}{18} + \frac{1}{9} = \square$

f) $\frac{1}{5} + \frac{8}{35} + \frac{2}{7} = \square$

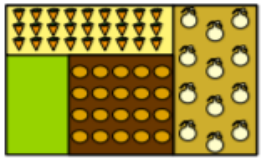
Explain how common multiples help when adding the fractions.

3 Rosie has a vegetable patch.

$\frac{2}{9}$ of the patch contains carrots.

$\frac{5}{18}$ of the patch contains potatoes.

$\frac{1}{3}$ of the patch contains onions.



What fraction of the patch contains carrots, potatoes or onions?

$\square$ of the patch contains carrots, potatoes or onions.

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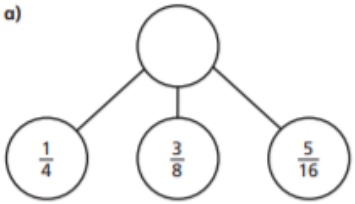
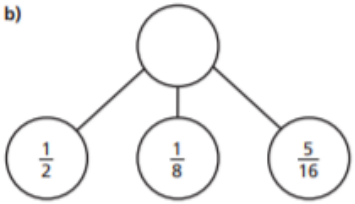
4 Complete the part-whole models.

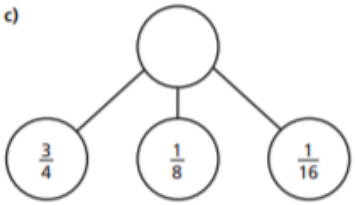
a)



b)



c)



d) Which one of the part-whole models is the odd one out?

Is there more than one answer?

Explain how you know.

5 Fill in the missing numerators.

a) $\frac{1}{8} + \frac{\square}{16} + \frac{3}{8} = \frac{5}{8}$

b) $\frac{1}{8} + \frac{\square}{16} + \frac{3}{8} = \frac{7}{8}$

c) $\frac{1}{4} + \frac{\square}{16} + \frac{3}{8} = \frac{3}{4}$

d) $\frac{1}{8} + \frac{\square}{16} + \frac{1}{4} = \frac{3}{4}$

e) $\frac{1}{8} + \frac{1}{16} + \frac{\square}{16} = \frac{3}{4}$

f) $\frac{1}{4} + \frac{1}{16} + \frac{\square}{16} = \frac{3}{4}$

6 Complete the number square.

The total of each column is $\frac{4}{5}$

The total of each row is $\frac{4}{5}$

$\frac{3}{10}$	$\frac{2}{5}$	
	$\frac{1}{10}$	
$\frac{7}{20}$		

Create your own problem like this for a partner.

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Thursday 25th February

Add fractions

1 Complete the calculations.

Use the bar models to help you.

a)

$\frac{1}{2} + \frac{7}{10} = \square = \square$

b)

$\frac{1}{2} + \frac{3}{10} + \frac{1}{5} = \square = \square$

c)

$\frac{2}{3} + \frac{5}{6} + \frac{1}{12} = \square = \square$

2 Complete the additions.

a) $\frac{4}{5} + \frac{7}{20} = \square = \square$

b) $\frac{5}{4} + \frac{7}{20} = \square = \square$

c) $\frac{3}{4} + \frac{5}{12} = \square = \square$

d) $\frac{4}{3} + \frac{5}{12} = \square = \square$

e) $\frac{3}{5} + \frac{11}{15} = \square = \square$

f) $\frac{5}{3} + \frac{11}{15} = \square = \square$

3 Match the additions that have the same answer.

$\frac{3}{5} + \frac{9}{20}$	$\frac{16}{20} + \frac{9}{20}$
$\frac{3}{4} + \frac{9}{20}$	$\frac{12}{20} + \frac{9}{20}$
$\frac{4}{5} + \frac{9}{20}$	$\frac{14}{20} + \frac{9}{20}$
$\frac{7}{10} + \frac{9}{20}$	$\frac{15}{20} + \frac{9}{20}$

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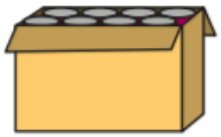
4 Dexter has some tins of food. There are four types of food: beans, sweetcorn, soup and tomatoes.



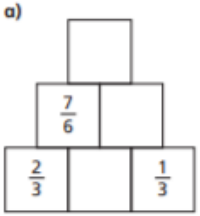
- The total weight of all the tins is 2 kg.
- The tins of beans weigh $\frac{2}{3}$ kg.
- The tins of sweetcorn weigh $\frac{5}{12}$ kg.
- The tins of soup weigh $\frac{1}{4}$ kg.

a) Work out the total weight of the tins of beans, sweetcorn and soup.

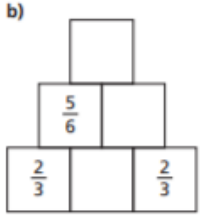
b) How much do the tins of tomatoes weigh?

5 Complete the addition pyramids.

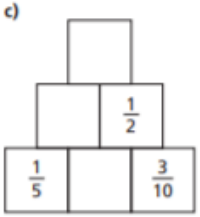
a)



b)



c)



6 What could the three missing numerators be?

$$\frac{\square}{4} + \frac{\square}{12} + \frac{\square}{3} = \frac{13}{12}$$

Give three different possibilities.

$$\frac{\square}{4} + \frac{\square}{12} + \frac{\square}{3} = \frac{13}{12}$$

$$\frac{\square}{4} + \frac{\square}{12} + \frac{\square}{3} = \frac{13}{12}$$

$$\frac{\square}{4} + \frac{\square}{12} + \frac{\square}{3} = \frac{13}{12}$$

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Friday 26th February

Add mixed numbers

1 Teddy and Mo are adding mixed numbers.

$3\frac{1}{4} + 2\frac{5}{8} = 5 + \frac{7}{8} = 5\frac{7}{8}$

Teddy

$3\frac{1}{4} + 2\frac{5}{8} = \frac{26}{8} + \frac{21}{8} = \frac{47}{8} = 5\frac{7}{8}$

Mo

Whose method do you prefer? _____

Talk about it with a partner.

2 Complete the calculations.

a) $1\frac{2}{5} + 2\frac{3}{10} =$ ☐

b) $2\frac{2}{5} + 2\frac{3}{10} =$ ☐

c) $1\frac{3}{4} + 3\frac{3}{20} =$ ☐

d) $1\frac{3}{16} + 4\frac{3}{4} =$ ☐

e) $4\frac{1}{4} + 2\frac{11}{16} =$ ☐

f) $1\frac{4}{15} + 3\frac{2}{3} =$ ☐

3

$2\frac{3}{5} + 1\frac{7}{10} = 3 + \frac{13}{10} = 3\frac{13}{10}$

How can Ron improve his answer?

_____

_____

4 Complete the additions.

a) $2\frac{3}{4} + 3\frac{5}{12} =$ ☐

b) $3\frac{2}{3} + 2\frac{7}{12} =$ ☐

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c) $5\frac{1}{6} + 3\frac{11}{12} =$ ☐

d) $6\frac{7}{15} + 3\frac{3}{5} =$ ☐

5 A blue ribbon is $2\frac{4}{9}$ metres long.

A yellow ribbon is $3\frac{2}{3}$ metres long.

a) What is the total length of the blue and yellow ribbon?

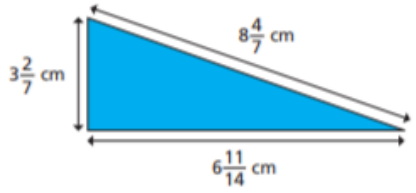
☐ m

b) A red ribbon is $1\frac{5}{18}$ metres longer than the yellow ribbon.

How long is the red ribbon?

☐ m

6 Calculate the perimeter of the triangle.



☐ cm

7 Complete the calculation in three different ways.

☐ $\frac{\square}{5}$ + ☐ $\frac{\square}{15}$ = $6 + \frac{11}{15}$ = ☐

☐ $\frac{\square}{5}$ + ☐ $\frac{\square}{15}$ = $6 + \frac{11}{15}$ = ☐

☐ $\frac{\square}{5}$ + ☐ $\frac{\square}{15}$ = $6 + \frac{11}{15}$ = ☐

Compare answers with a partner.

8 Here are some number cards.

$3\frac{1}{6}$	$2\frac{11}{12}$	$2\frac{5}{6}$	$3\frac{5}{6}$	$4\frac{1}{12}$	$4\frac{1}{3}$

a) What is the greatest total you can make with two cards?

☐

b) What is the smallest total you can make with two cards?

☐

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