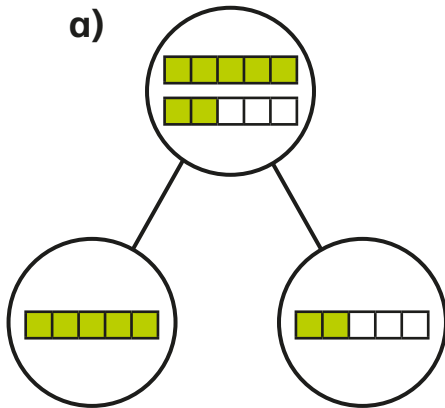


Fractions greater than 1

1 Complete the sentences.

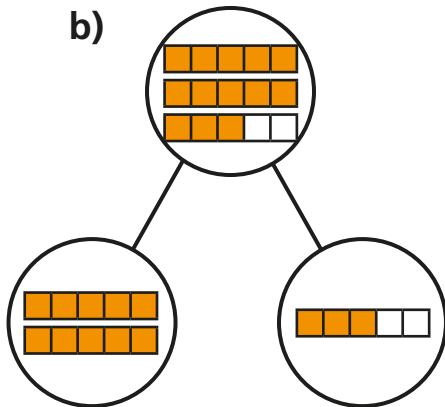
a)



There are 7 fifths altogether.

7 fifths = whole + fifths

b)

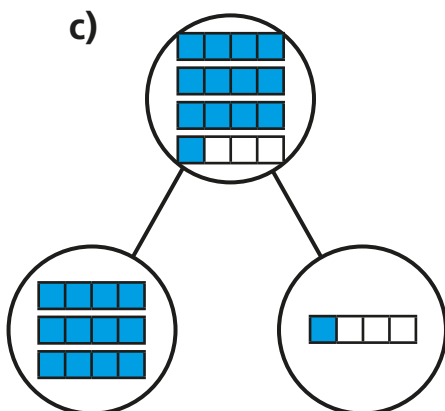


There are fifths altogether.

fifths = wholes +

fifths

c)



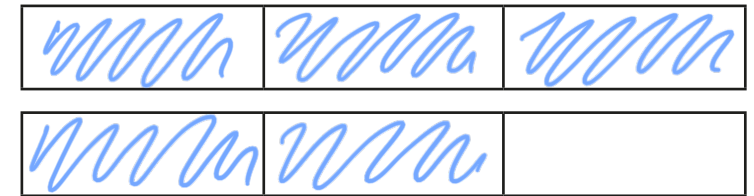
There are quarters altogether.

quarters = wholes +

quarter

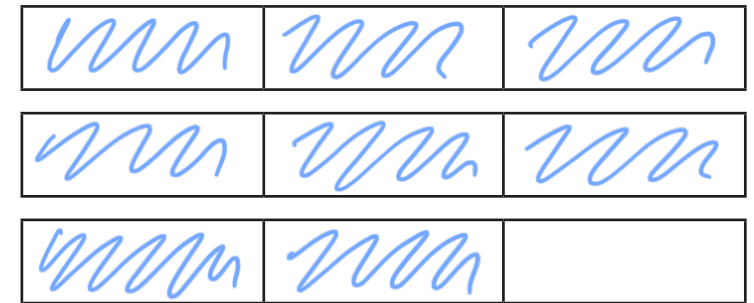
2 Shade the bar models to represent the fractions.

a) $\frac{5}{3}$



$\frac{5}{3} =$ whole + thirds =

b) $\frac{8}{3}$



$\frac{8}{3} =$ wholes + thirds =

c) $\frac{8}{5}$



$\frac{8}{5} =$ whole + fifths =



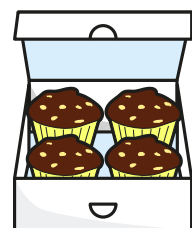
3 Complete the statements.

- 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

4 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.

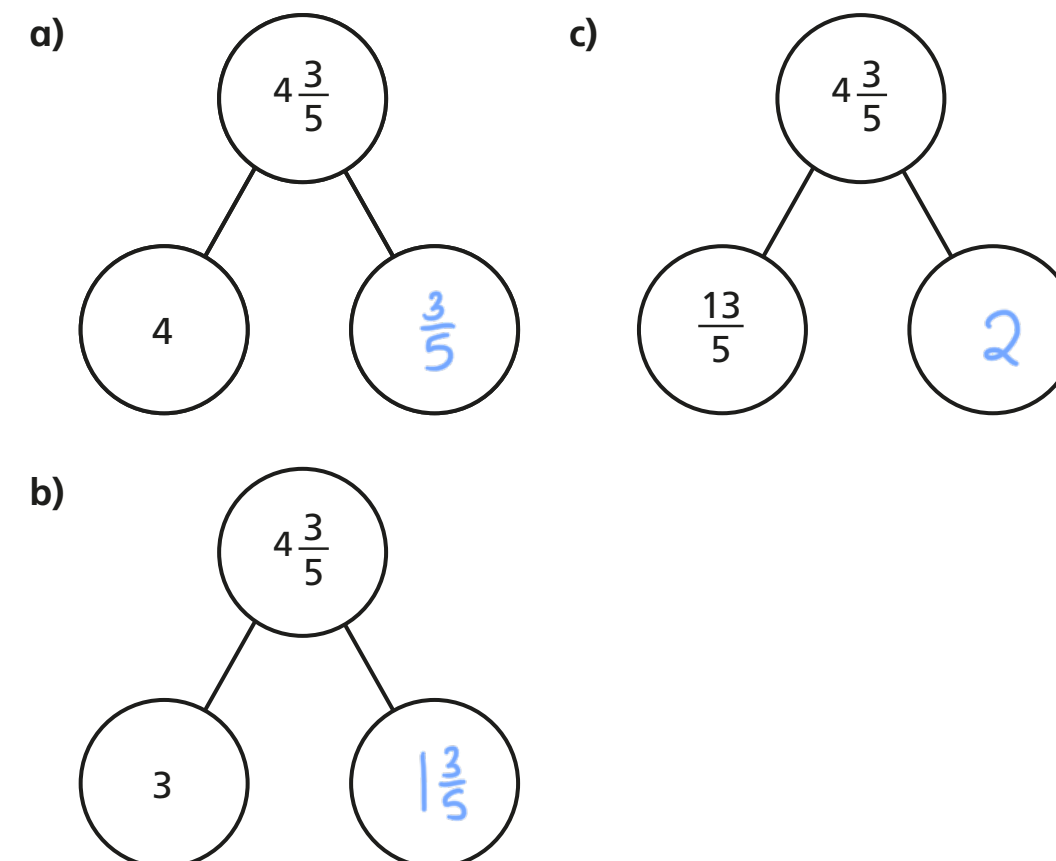
She will fill 6 boxes with 2 left over so another
2 are needed to fill the seventh box.

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

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

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

6 Complete the part-whole models.



Improper to mixed numbers



1 Convert the improper fractions to mixed numbers.

a)

$$\frac{8}{5} = 1\frac{3}{5}$$

b)

$$\frac{12}{5} = 2\frac{2}{5}$$

c)

$$\frac{9}{4} = 2\frac{1}{4}$$

d)

$$\frac{5}{3} = 1\frac{2}{3}$$

2 Shade the bar models to represent each improper fraction.
Convert the improper fractions to mixed numbers.

a)

$$\frac{7}{3} = 2\frac{1}{3}$$

b)

$$\frac{8}{3} = 2\frac{2}{3}$$

c)

$$\frac{9}{4} = 2\frac{1}{4}$$

d)

$$\frac{11}{4} = 2\frac{3}{4}$$


3 Convert the improper fractions to mixed numbers.

a) $\frac{10}{2} =$ 5

e) $\frac{12}{5} =$ $2\frac{2}{5}$

b) $\frac{10}{3} =$ $3\frac{1}{3}$

f) $\frac{13}{6} =$ $2\frac{1}{6}$

c) $\frac{10}{4} =$ $2\frac{1}{2}$

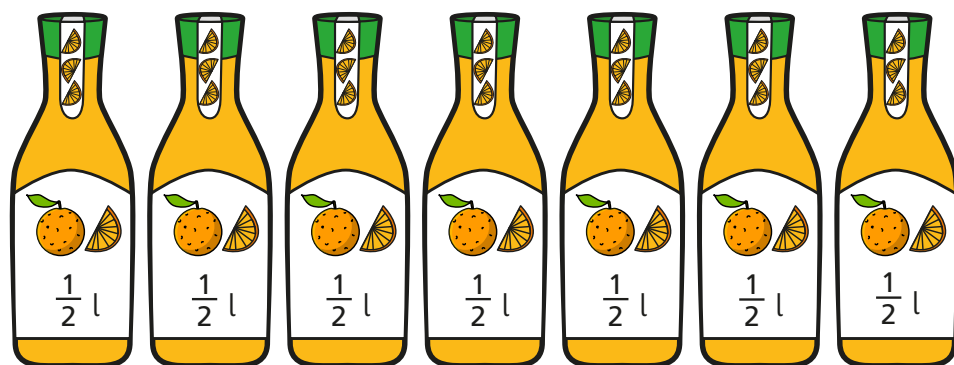
g) $\frac{13}{7} =$ $1\frac{6}{7}$

d) $\frac{10}{5} =$ 2

h) $\frac{31}{8} =$ $3\frac{7}{8}$

4 Eva has 7 bottles of juice.

Each bottle contains half a litre of juice.

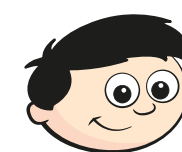


How many litres of juice does Eva have altogether?

Write your answer as a mixed number.

$3\frac{1}{2}$ l

5 Dexter is converting improper fractions.



$\frac{32}{3} = 3\frac{2}{3}$

Explain why Dexter is incorrect.

6 Find the value of $\bigcirc$

$\frac{27}{\bigcirc} = \bigcirc \frac{2}{\bigcirc}$

$\bigcirc =$ 5

7 Find two possible values for $\star$ and $\blacktriangle$

$\frac{30}{\star} = \blacktriangle \frac{2}{\star}$

$\star =$ 14

$\blacktriangle =$ 2

$\star =$ 7

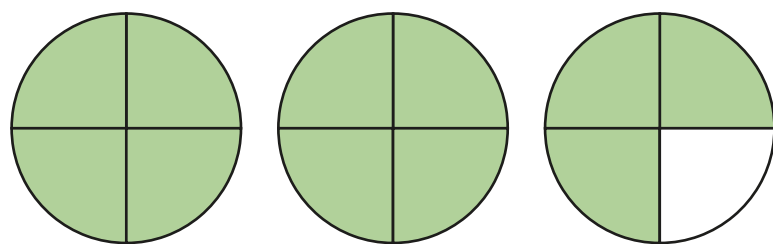
$\blacktriangle =$ 4

Mixed numbers to improper fractions



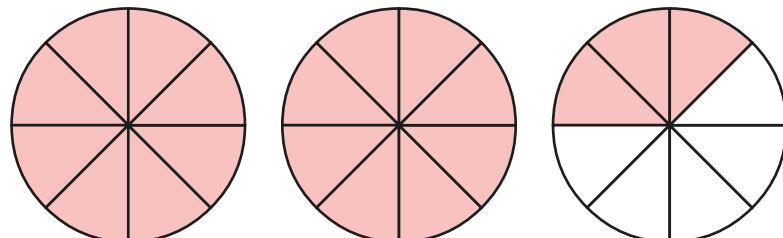
1 Convert the mixed numbers to improper fractions.

a)



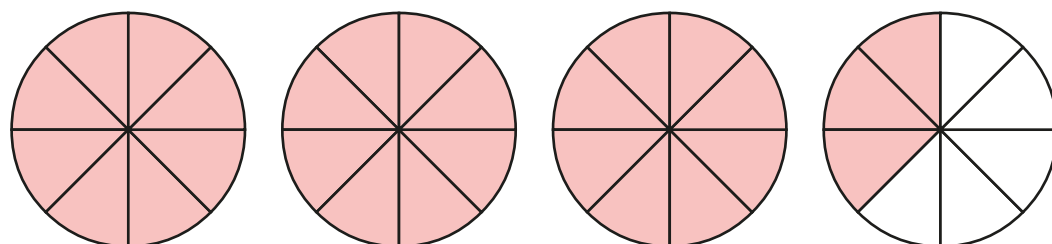
$$2\frac{3}{4} = \frac{11}{4}$$

b)



$$2\frac{3}{8} = \frac{19}{8}$$

c)



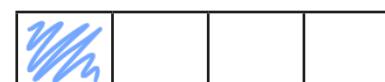
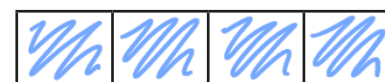
$$3\frac{3}{8} = \frac{27}{8}$$

2

Convert the mixed numbers to improper fractions.

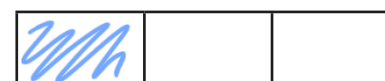
Colour the bar models to help you.

a)



$$2\frac{1}{4} = \frac{9}{4}$$

b)



$$2\frac{1}{3} = \frac{7}{3}$$

c)



$$3\frac{1}{3} = \frac{10}{3}$$

d)



$$3\frac{2}{5} = \frac{17}{5}$$



3 Convert the mixed numbers to improper fractions.

Write the next conversion in each part.

a) $2\frac{1}{7} = \frac{15}{7}$

$2\frac{2}{7} = \frac{16}{7}$

$2\frac{3}{7} = \frac{17}{7}$

$2\frac{4}{7} = \frac{18}{7}$

c) $5\frac{1}{2} = \frac{11}{2}$

$5\frac{1}{4} = \frac{21}{4}$

$5\frac{1}{8} = \frac{41}{8}$

$5\frac{1}{16} = \frac{81}{16}$

b) $3\frac{1}{5} = \frac{16}{5}$

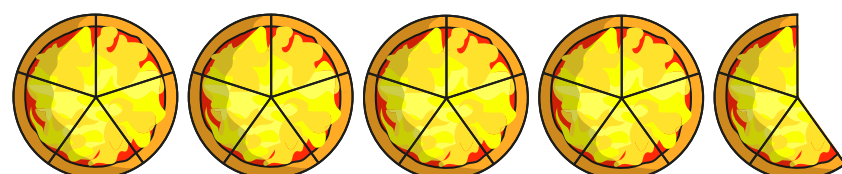
$4\frac{1}{5} = \frac{21}{5}$

$5\frac{1}{5} = \frac{26}{5}$

$6\frac{1}{5} = \frac{31}{5}$

Talk to a partner about any patterns you spot.

4 Here are 4 whole pizzas and $\frac{3}{5}$ of a pizza.



How many children can have $\frac{1}{5}$ of a pizza?

23

5 Whitney is converting mixed numbers to improper fractions.



$4\frac{1}{7} = \frac{28}{7}$

Do you agree with Whitney? No

Explain your answer.

She has converted 4 wholes to $\frac{28}{7}$ but

forgotten to add the extra seventh.

6

$\text{circle} \frac{3}{5} = \text{triangle} \frac{1}{5}$

The table shows some possible values of the circle.

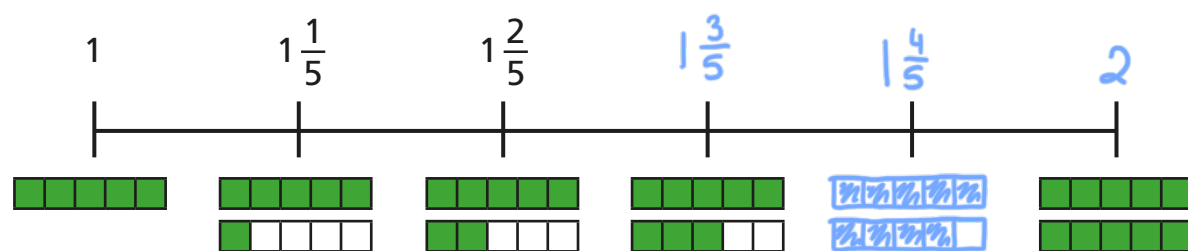
Use this to find the corresponding value of the triangle.

circle	triangle
1	8
2	13
4	23
8	43
16	83
17	88
160	803

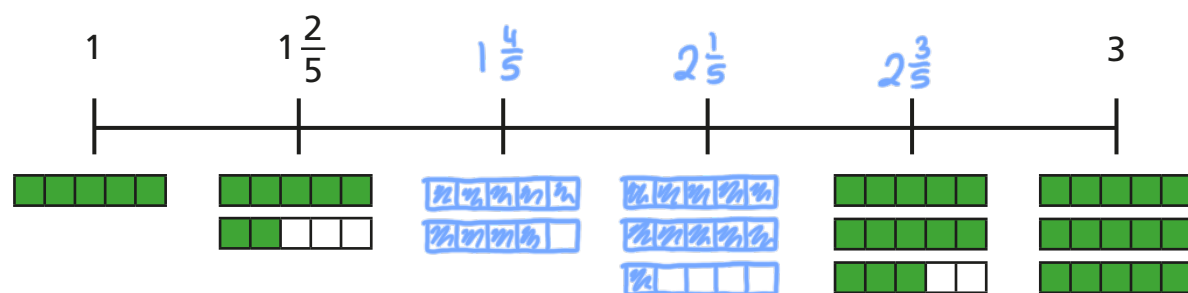
Number sequences

1 Complete the number lines.

a)

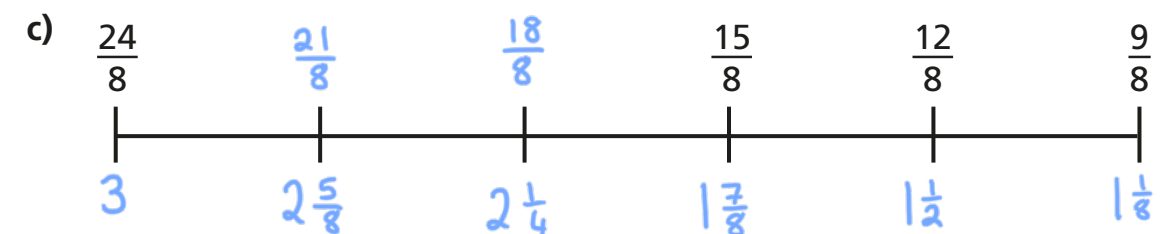
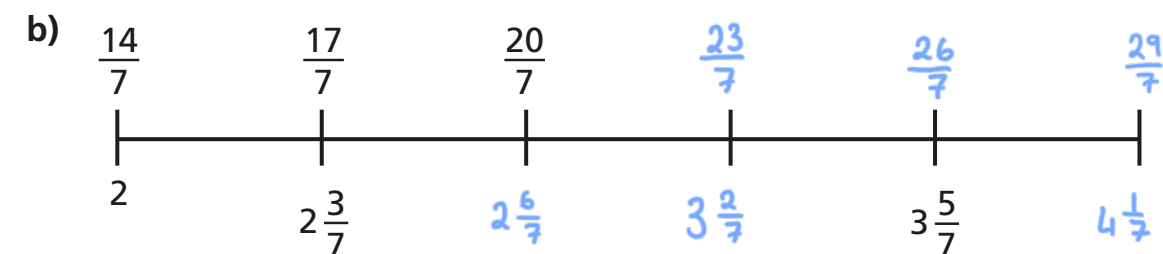
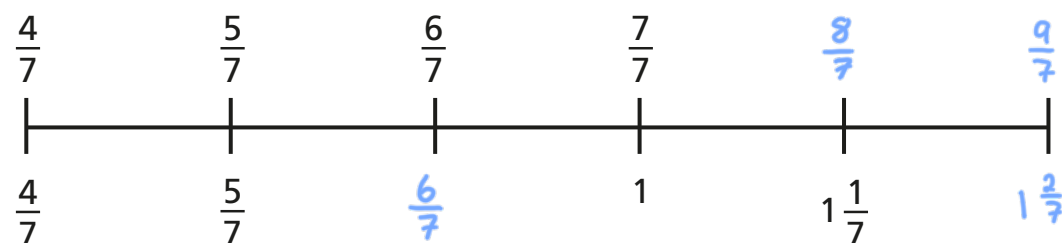


b)



2 Complete the number lines.

a)



3 Continue the sequences.

a) $2\frac{7}{8}, 3\frac{1}{8}, 3\frac{3}{8}, 3\frac{5}{8}, 3\frac{7}{8}, 4\frac{1}{8}$

b) $5\frac{6}{7}$, $5\frac{3}{7}$, 5, $4\frac{4}{7}$, $4\frac{1}{7}$, $3\frac{5}{7}$

c) $5\frac{6}{11}$, $5\frac{3}{11}$, 5, $4\frac{8}{11}$, $4\frac{5}{11}$, $4\frac{2}{11}$

What is the same and what is different about the sequences in parts b) and c)?

Talk about it with a partner.

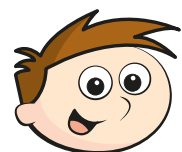
4 Match each sequence to its rule.

$2\frac{2}{3}, 3\frac{1}{3}, 4, 4\frac{2}{3}$	add three quarters
$2\frac{1}{2}, 3\frac{1}{4}, 4, 4\frac{3}{4}$	subtract two thirds
$4\frac{1}{3}, 3\frac{2}{3}, 3, 2\frac{1}{3}$	add two thirds
$4\frac{1}{4}, 3\frac{3}{4}, 3\frac{1}{4}, 2\frac{3}{4}$	subtract one half

5 Teddy and Rosie are finding the missing numbers in the sequence.

3, , , , , , , , 4

a)



I think the missing fractions are sevenths because there are seven blank number cards.

Do you agree with Teddy? No

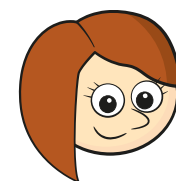
Explain your answer.

If they were sevenths there would only be 6 blank cards because $3\frac{7}{7} = 4$

b) Complete the sequence.

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

c)



I think one of the missing fractions is equivalent to $3\frac{1}{2}$

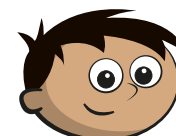
Is Rosie correct? Yes

Explain how you know.

$\frac{4}{8}$ is equivalent to $\frac{1}{2}$ so $3\frac{4}{8}$ is equivalent to $3\frac{1}{2}$.

d) Which other fractions in the sequence can you find equivalent fractions for?

6



I am thinking of a number sequence. The 1st and 4th terms are consecutive integers.

Write the rule for Amir's sequence.

Add one third. (Accept subtract one third)