Homework/Extension
Step 5: Count in Fractions

National Curriculum Objectives:

Mathematics Year 4: (4F4) Add and subtract fractions with the same denominator

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)
Developing Complete a number line and convert improper fractions to mixed numbers. Using a sequence which increases by one fraction increment at a time.
Expected Complete a number line and convert improper fractions to mixed numbers. Using a sequence which can increase or decrease by one fraction increment at a time.
Greater Depth Complete a number line and convert improper fractions to mixed numbers. Using a sequence which can increase or decrease by at least one fraction increment at a time where denominators are mixed.

Questions 2, 5 and 8 (Varied Fluency)
Developing Find the fifth fraction in the sequence using a sequence which increases by one fraction increment at a time.
Expected Find the fifth fraction in the sequence using a sequence which can increase or decrease by at least one fraction increment at a time.
Greater Depth Find the fifth fraction in the sequence using a sequence which can increase or decrease by at least one fraction increment at a time where denominators are mixed.

Questions 3, 6 and 9 (Reasoning and Problem Solving)
Developing Use the clues to identify numbers in a sequence which increases by one fraction increment at a time.
Expected Use the clues to identify numbers in a sequence which can increase or decrease by at least one fraction increment at a time.
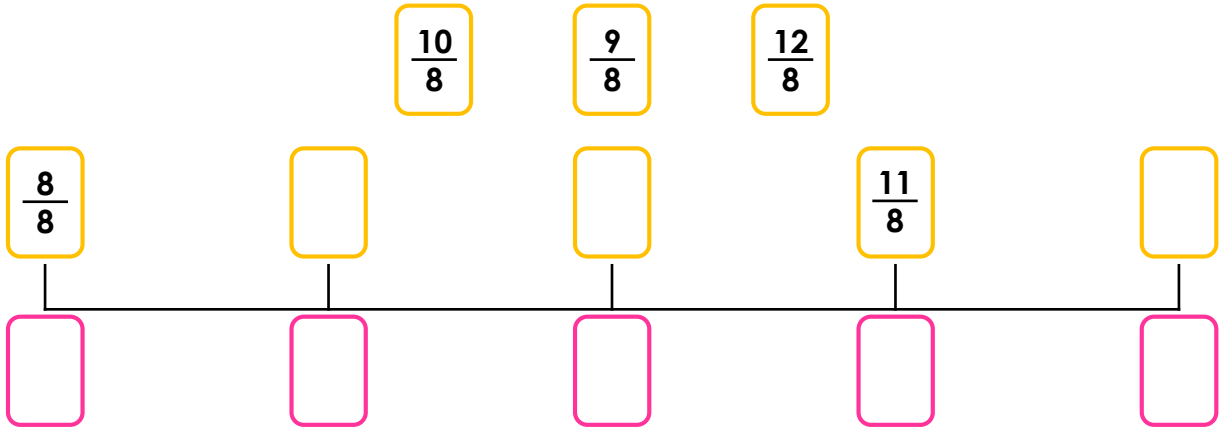**Greater Depth** Use the clues to identify numbers in a sequence which can increase or decrease by at least one fraction increment at a time where denominators are mixed.

More Year 4 Fractions resources.

Did you like this resource? Don't forget to review it on our website.

Count in Fractions

1. Use the fraction cards to complete the top of the number line.

$\frac{10}{8}$ $\frac{9}{8}$ $\frac{12}{8}$

$\frac{8}{8}$ $\boxed{}$ $\boxed{}$ $\frac{11}{8}$ $\boxed{}$

Now complete the bottom of the number line using mixed numbers.

VF
HW/Ext

2. A fraction sequence starts at $\frac{4}{6}$ and increases by $\frac{1}{6}$ each time.

$\frac{4}{6}$

Start

What is the fifth number in the sequence?

VF
HW/Ext

3. Harriet is thinking of a fraction sequence.

My sequence starts with a mixed number between 1 and 2.
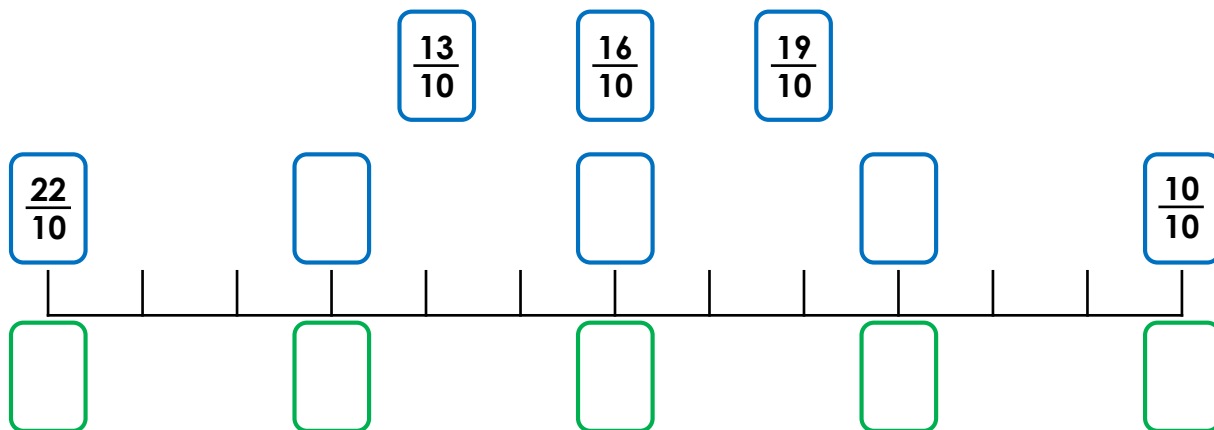The number increases by $\frac{1}{4}$ each time.

Write the first four fractions in Harriet's sequence. Find a second possibility.

RPS
HW/Ext

Count in Fractions

4. Use the fraction cards to complete the top of the number line.

$\dfrac{13}{10}$ $\dfrac{16}{10}$ $\dfrac{19}{10}$

$\dfrac{22}{10}$ [ ] [ ] [ ] $\dfrac{10}{10}$

[ ] [ ] [ ] [ ] [ ]

Now complete the bottom of the number line using mixed numbers.

E   VF
HW/Ext

5. A fraction sequence starts at $\dfrac{4}{5}$ and increases by $\dfrac{2}{5}$ each time.

$\dfrac{4}{5}$

Start

What is the fifth number in the sequence?

E   VF
HW/Ext

6. Vincent is thinking of a fraction sequence.

> My sequence starts with a mixed number between 1 and 2.
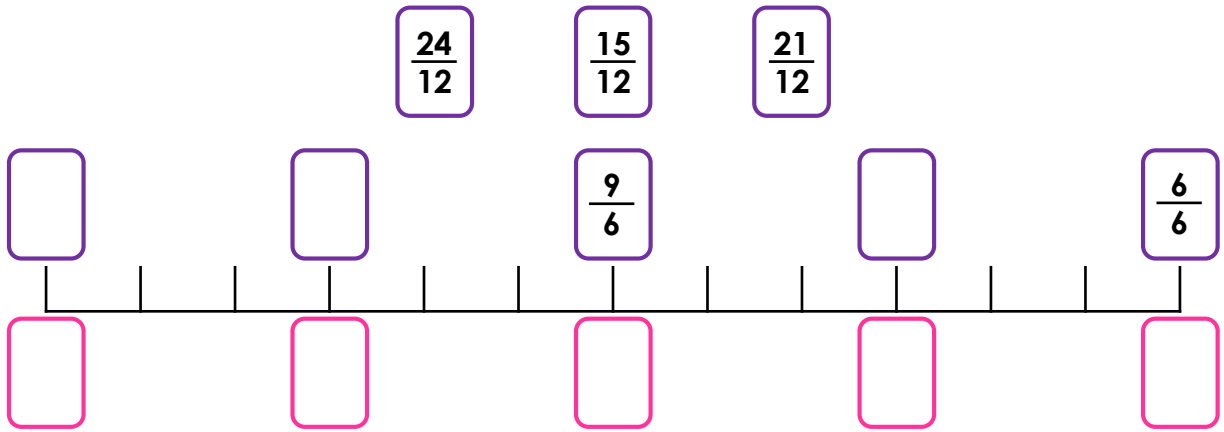> The number increases by $\dfrac{2}{7}$ each time.

Write the first four fractions in Vincent's sequence. Find a second possibility.

E   RPS
HW/Ext

Count in Fractions

7. Use the fraction cards to complete the top of the number line.

$$\frac{24}{12} \qquad \frac{15}{12} \qquad \frac{21}{12}$$

$$\frac{9}{6} \qquad\qquad \frac{6}{6}$$
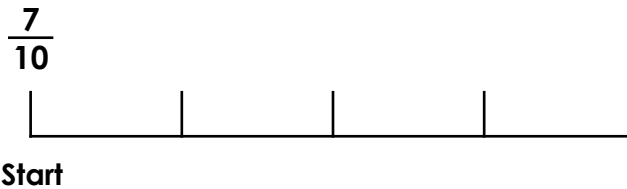
Now complete the bottom of the number line using mixed numbers.

8. A fraction sequence starts at $\frac{7}{10}$ and increases by $\frac{3}{5}$ each time.

$$\frac{7}{10}$$

Start

What is the fifth number in the sequence?

9. Anoop is thinking of a fraction sequence.

> My sequence starts with a mixed number between 2 and 3.
> The number increases by $\frac{3}{4}$ each time.
> There are no exact whole numbers in my sequence.

Write the first four fractions in Anoop's sequence. Find a second possibility.

Developing

1. Top line: $\frac{9}{8}$, $\frac{10}{8}$, $\frac{12}{8}$; bottom line: 1, $1\frac{1}{8}$, $1\frac{2}{8}$, $1\frac{3}{8}$, $1\frac{4}{8}$

2. $\frac{8}{6}$ or $1\frac{2}{6}$

3. $1\frac{1}{4}$, $1\frac{2}{4}$, $1\frac{3}{4}$, 2 ; $1\frac{2}{4}$, $1\frac{3}{4}$, 2, $2\frac{1}{4}$ or $1\frac{3}{4}$, 2, $2\frac{1}{4}$, $2\frac{2}{4}$

Expected

4. Top line: $\frac{19}{10}$, $\frac{16}{10}$, $\frac{13}{10}$; bottom line: $2\frac{2}{10}$, $1\frac{9}{10}$, $1\frac{6}{10}$, $1\frac{3}{10}$, 1

5. $\frac{12}{5}$ or $2\frac{2}{5}$

6. Various answers starting with a mixed number between 1 and 2, for example:

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

Greater Depth

7. Top line: $\frac{24}{12}$, $\frac{21}{12}$, $\frac{15}{12}$; bottom line: 2, $1\frac{9}{12}$, $1\frac{6}{12}$, $1\frac{3}{12}$, 1

8. $\frac{31}{10}$ or $3\frac{1}{10}$

9. Various answers starting with a mixed number between 1 and 2, for example:

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