Varied Fluency
Step 4: Number Sequences

National Curriculum Objectives:

Mathematics Year 5: (5F2a) Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, 2/5 + 4/5 = 6/5 = 1 1/5]
Mathematics Year 5: (5F3) Compare and order fractions whose denominators are all multiples of the same number

Differentiation:

Developing Questions to support sequencing mixed numbers and fractions with the same denominators.
Expected Questions to support sequencing mixed numbers and fractions with denominators which are direct multiples of the same number.
Greater Depth Questions to support sequencing mixed numbers and improper fractions with some denominators which are not direct multiples of each other, but have a common factor.

More Year 5 Fractions resources.

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

Number Sequences

1a. True or false?

The sequence below is increasing by $\frac{1}{5}$.

$1, \quad 1\frac{1}{5}, \quad 1\frac{2}{5}, \quad 1\frac{3}{5}, \quad 1\frac{4}{5}, \quad 2$

VF

1b. True or false?

The sequence below is decreasing by $\frac{1}{7}$.

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

VF

2a. Tick the box to show where the mixed number $4\frac{3}{7}$ should go in the sequence.

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

VF

2b. Tick the box to show where the mixed number $3\frac{3}{6}$ should go in the sequence.

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

VF

3a. Sequence the numbers below from smallest to largest.

$2\frac{6}{8}$ $3\frac{2}{8}$ 3

$3\frac{1}{8}$ $2\frac{5}{8}$ $2\frac{7}{8}$

VF

3b. Sequence the numbers below from largest to smallest.

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

$3\frac{3}{4}$ $3\frac{1}{4}$ $4\frac{1}{4}$

VF

4a. My sequence starts with the mixed number $5\frac{2}{6}$.

It is decreasing by $\frac{1}{6}$.

Write the next 3 numbers in the sequence.

VF

4b. My sequence starts with the mixed number $4\frac{2}{5}$.

It is increasing by $\frac{1}{5}$.

Write the next 3 numbers in the sequence.

VF

classroomsecrets.co.uk
Varied Fluency – Number Sequences – Year 5 Developing

Number Sequences

Number Sequences

5a. True or false?

The sequence below is increasing by $\frac{1}{6}$.

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

VF

5b. True or false?

The sequence below is decreasing by $\frac{2}{5}$.

$$4\frac{3}{5}, \quad 4\frac{2}{5}, \quad 4\frac{1}{5}, \quad 4, \quad 3\frac{4}{5}, \quad 3\frac{3}{5}$$

VF

6a. Tick the box to show where the mixed number $5\frac{5}{8}$ should go in the sequence.

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

VF

6b. Tick the box to show where the mixed number $1\frac{4}{10}$ should go in the sequence.

$$1\frac{3}{10}, \quad \square \quad 1\frac{1}{2}, \quad \square \quad 1\frac{6}{10}, \quad \square \quad 1\frac{7}{10}$$

VF

7a. Sequence the numbers below from smallest to largest.

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

VF

7b. Sequence the numbers below from largest to smallest.

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

VF

8a. My sequence starts with the mixed number $10\frac{1}{2}$.

It is decreasing by $\frac{1}{4}$.

Write the next 5 numbers in the sequence.

VF

8b. My sequence starts with the mixed number $9\frac{1}{2}$.

It is increasing by $\frac{1}{6}$.

Write the next 5 numbers in the sequence.

VF

classroomsecrets.co.uk

Varied Fluency – Number Sequences – Year 5 Expected

9a. True or false?

The sequence below is increasing by $\frac{3}{9}$.

$6\frac{1}{6},\qquad 6\frac{1}{3},\qquad 6\frac{1}{2},\qquad 6\frac{6}{9},\qquad 6\frac{10}{12},\qquad 7$

VF

9b. True or false?

The sequence below is decreasing by $\frac{3}{4}$.

$5\frac{9}{12},\qquad 5\frac{1}{2},\qquad 5\frac{2}{8},\qquad 5,\qquad 4\frac{3}{4},\qquad 4\frac{3}{6}$

VF

10a. Tick the box to show where the mixed number $8\frac{2}{5}$ should go in the sequence.

$8\frac{16}{20},\ \square\ \ 8\frac{6}{10},\ \square\ \ 8\frac{3}{15},\ \square\ \ 8$

VF

10b. Tick the box to show where the mixed number $9\frac{1}{3}$ should go in the sequence.

$9\frac{4}{18},\ \square\ \ 9\frac{12}{27},\ \square\ \ 9\frac{5}{9},\ \square\ \ 9\frac{4}{6}$

VF

11a. Sequence the numbers below from smallest to largest.

$\boxed{\dfrac{35}{8}}\qquad \boxed{3\dfrac{3}{4}}\qquad \boxed{4}$

$\boxed{3\dfrac{14}{16}}\qquad \boxed{4\dfrac{3}{12}}\qquad \boxed{\dfrac{33}{8}}$

VF

11b. Sequence the numbers below from largest to smallest.

$\boxed{6\dfrac{10}{50}}\qquad \boxed{7}\qquad \boxed{6\dfrac{9}{15}}$

$\boxed{\dfrac{34}{5}}\qquad \boxed{6\dfrac{8}{20}}\qquad \boxed{7\dfrac{2}{10}}$

VF

12a. My sequence starts with the improper fraction $\frac{86}{7}$.

It is decreasing by $\frac{2}{14}$.

Write the next 5 mixed numbers in the sequence.

VF

12b. My sequence starts with the improper fraction $\frac{64}{6}$.

It is increasing by $\frac{2}{12}$.

Write the next 5 mixed numbers in the sequence.

VF

Varied Fluency
Number Sequences

Developing

1a. True

2a. Box 3

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

4a. $5\frac{1}{6}$, 5, $4\frac{5}{6}$

Expected

5a. True

6a. Box 2

7a. $3\frac{1}{2}$, $3\frac{8}{12}$, $3\frac{10}{12}$, 4, $4\frac{1}{6}$, $4\frac{4}{12}$

8a. $10\frac{1}{4}$, 10, $9\frac{3}{4}$, $9\frac{1}{2}$, $9\frac{1}{4}$

Greater Depth

9a. False, the sequence is increasing by $\frac{1}{6}$.

10a. Box 2

11a. $3\frac{3}{4}$, $3\frac{14}{16}$, 4, $\frac{33}{8}$, $4\frac{3}{12}$, $\frac{35}{8}$

12a. $12\frac{1}{7}$, 12, $11\frac{6}{7}$, $11\frac{5}{7}$, $11\frac{4}{7}$

Varied Fluency
Number Sequences

Developing

1b. True

2b. Box 2

3b. $4\frac{1}{4}$, 4, $3\frac{3}{4}$, $3\frac{2}{4}$, $3\frac{1}{4}$, 3

4b. $4\frac{3}{5}$, $4\frac{4}{5}$, 5

Expected

5b. False, the sequence is decreasing by $\frac{1}{5}$.

6b. Box 1

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

8b. $9\frac{4}{6}$, $9\frac{5}{6}$, 10, $10\frac{1}{6}$, $10\frac{2}{6}$

Greater Depth

9b. False, the sequence is decreasing by $\frac{1}{4}$.

10b. Box 1

11b. $7\frac{2}{10}$, 7, $\frac{34}{5}$, $6\frac{9}{15}$, $6\frac{8}{20}$, $6\frac{10}{50}$

12b. $10\frac{5}{6}$, 11, $11\frac{1}{6}$, $11\frac{2}{6}$, $11\frac{1}{2}$

---

classroomsecrets.co.uk
Varied Fluency – Number Sequences ANSWERS