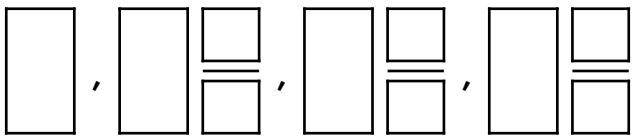
Number Sequences

1. My sequence starts with the mixed number $5\frac{1}{4}$.

It is increasing by $\frac{3}{4}$.

Write the next 4 terms in the sequence.



VF

2. Tick the boxes to show where $\frac{2}{3}$ should go in the sequences below.

1st sequence:

A		B		C	D
$\frac{16}{9}$,		$\frac{12}{9}$,		$\frac{8}{9}$,		

2nd sequence:

E	F			G	
	,		$\frac{8}{3}$,	$\frac{11}{3}$,		$\frac{17}{3}$

VF

3. Work out how the sequences are decreasing. Which sequence is the odd the one out?

A. 6 | $5\frac{4}{9}$ | $4\frac{8}{9}$ | $4\frac{3}{9}$

B. $\frac{21}{9}$ | $\frac{16}{9}$ | $1\frac{2}{9}$ | $\frac{6}{9}$

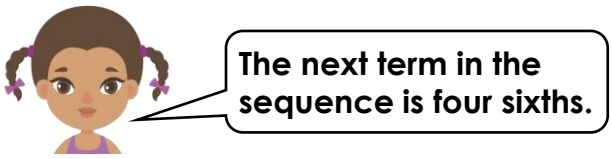
C. $3\frac{7}{9}$ | $3\frac{1}{3}$ | $2\frac{8}{9}$ | $2\frac{4}{9}$

VF

4. Mr Crook shows Class 5 the sequence below.

3 | $\frac{15}{6}$ | $\frac{12}{6}$ | $\frac{9}{6}$ | 1

Gertrude says,



Is she correct? Convince me.

R

5. Travel through the maze, in any direction, by finding a number sequence.

	$4\frac{1}{8}$	$4\frac{3}{8}$	$5\frac{7}{8}$ → Finish
	4	$4\frac{6}{8}$	$5\frac{1}{2}$
Start →	$3\frac{5}{8}$	$2\frac{7}{8}$	$5\frac{1}{8}$
	$3\frac{3}{8}$	$2\frac{7}{12}$	$4\frac{1}{4}$

Find two different routes.

PS

6. Look at the sequence below.

A. Circle and correct the mistake.

$7\frac{2}{10}$ | $5\frac{9}{10}$ | $4\frac{5}{10}$ | $3\frac{1}{10}$ | $1\frac{7}{10}$

B. Will the next term in the sequence have an odd numerator that hasn't been used yet?

Explain your reasoning.

R

Number Sequences

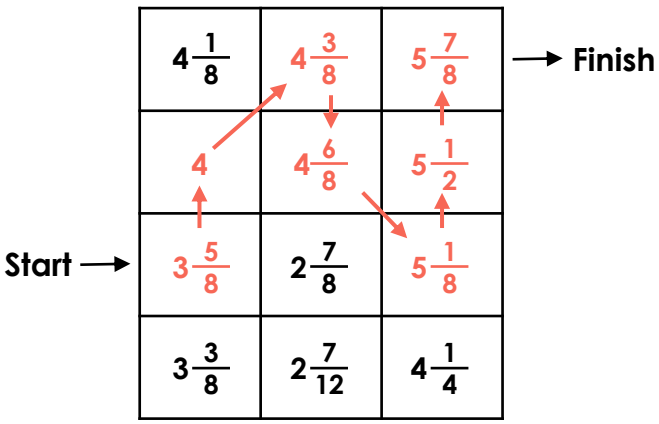
1. 6 , $6\frac{3}{4}$, $7\frac{2}{4}$, $8\frac{1}{4}$

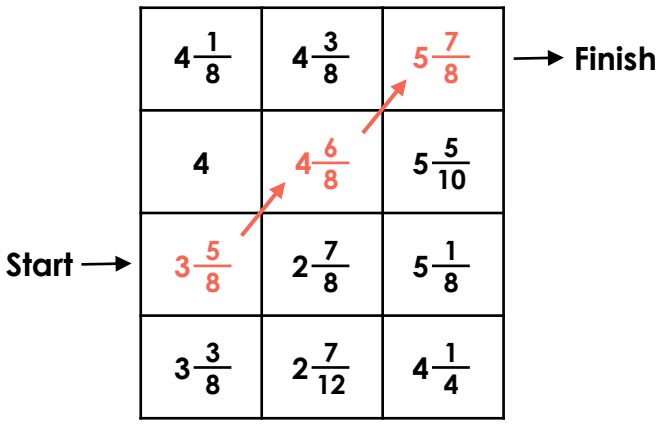
2. C and E should be ticked

3. C

4. No, Gertrude is incorrect because the sequence is decreasing by $\frac{3}{6}$ each time. 1 equals $\frac{6}{6}$ and $\frac{3}{6}$ less than $\frac{6}{6}$ equals $\frac{3}{6}$, so the next term in the sequence is $\frac{3}{6}$.

5. Various answers, two different routes are shown below.





6. A. $7\frac{2}{10}$ should be $7\frac{3}{10}$ as the sequence is decreasing by $1\frac{4}{10}$ each time.

B. No, because the next term in the sequence must be $1\frac{4}{10}$ less than $1\frac{7}{10}$ which equals $\frac{3}{10}$. 3 is an odd numerator, but the first fraction in the sequence should be $7\frac{3}{10}$ which also uses the number 3.