Name: ..... Class: .....

Arithmetic sequences with fractions

a. Find the next fraction in this sequence.

$\frac{1}{9}, \frac{3}{9}, \frac{5}{9}, \ldots$

b. Find the next fraction in this sequence.

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

c. Find the next fraction in this sequence.

$\frac{9}{10}, \frac{7}{10}, \frac{5}{10}, \frac{3}{10}, \ldots$

d. Find the next fraction in this sequence.

$\frac{1}{6}, \frac{3}{6}, \frac{5}{6}, \ldots$

e. Find the next fraction in this sequence.

$\frac{7}{7}, \frac{6}{7}, \frac{5}{7}, \frac{4}{7}, \frac{3}{7}, \ldots$

f. Find the next fraction in this sequence.

$\frac{8}{10}, \frac{6}{10}, \frac{4}{10}, \frac{2}{10}, \ldots$

Solution

Name: ..... Class: .....

Arithmetic sequences with fractions

a. Find the next fraction in this sequence.

$\frac{1}{9}, \frac{3}{9}, \frac{5}{9}, \ldots$

First of all, let's find the general trend in this sequence.
You see that the numerators of the fractions increase by 2 each time.
So, the general trend is add $\frac{2}{9}$
Now add $\frac{2}{9}$ to $\frac{5}{9}$ to get the next fraction.

$\frac{2}{9} + \frac{5}{9} = \frac{7}{9}$ So, the next fraction is $\boxed{\frac{7}{9}}$

b. Find the next fraction in this sequence.

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

First of all, let's find the general trend in this sequence.
You see that the numerators of the fractions decrease by 1 each time.
So, the general trend is subtract $\frac{1}{8}$
Subtract $\frac{1}{8}$ from $\frac{3}{8}$ to get the next fraction.

$\frac{3}{8} - \frac{1}{8} = \frac{2}{8}$ So, the next fraction is $\boxed{\frac{2}{8}}$

c. Find the next fraction in this sequence.

$\frac{9}{10}, \frac{7}{10}, \frac{5}{10}, \frac{3}{10}, \ldots$

You see that the numerators of the fractions decrease by 2 each time.
So, the general trend is subtract $\frac{2}{10}$
Subtract $\frac{2}{10}$ from $\frac{3}{10}$ to get the next fraction.

$\frac{3}{10} - \frac{2}{10} = \frac{1}{10}$ So, the next fraction is $\boxed{\frac{1}{10}}$