

Reasoning and Problem Solving

Step 4: Count in Tenths

National Curriculum Objectives:

Mathematics Year 3: (3F1a) [Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10](#)
Mathematics Year 3: (3F10) [Solve problems that involve 3F1 - 3F4](#)

Differentiation:

Questions 1, 4 and 7 (Problem Solving)

Developing Use the clues to find a fraction by counting forwards only using fractions less than ten tenths. Pictorial support provided and fractions written in numbers only.

Expected Use the clues to find the starting fraction by counting forwards or backwards beyond ten tenths. Improper fractions written in numbers and words.

Greater Depth Use the clues to find the starting fraction by counting forwards and backwards beyond ten tenths in a multi-step problem. Proper, improper and mixed fractions written in numbers and words.

Questions 2, 5 and 8 (Reasoning)

Developing Explain if a pictorial representation using tenths is correct. Counting forwards only using fractions less than ten tenths.

Expected Explain if a pictorial representation using tenths is correct. Counting forwards or backwards beyond ten tenths using proper and improper fractions written in numbers and words and recognising mixed fractions.

Greater Depth Explain if a problem using tenths is correct when counting forwards and backwards beyond ten tenths using proper, improper and mixed fractions written in numbers and words.

Questions 3, 6 and 9 (Reasoning)

Developing Explain which statement, from two, is correct when counting forwards only in tenths less than ten tenths. Fractions written in numbers only.

Expected Explain which statement, from two, is correct when counting forwards and backwards in tenths beyond ten tenths. using proper and improper fractions written in numbers and words and recognising mixed fractions.

Greater Depth Explain which statement, from three, is correct when counting forwards and backwards in tenths beyond ten tenths using proper, improper and mixed fractions written in numbers and words.

More [Year 3 Fractions](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

Count in Tenths

1a. Use the clues given to find the missing fraction.

I start on $\frac{2}{10}$.

I count forwards $\frac{3}{10}$.

Then I count forwards $\frac{2}{10}$.

What fraction do I end on?



PS

Count in Tenths

1b. Use the clues given to find the missing fraction.

I start on $\frac{1}{10}$.

I count forwards $\frac{2}{10}$.

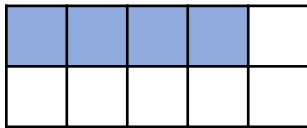
Then I count forwards $\frac{3}{10}$.

What fraction do I end on?



PS

2a. Esme has shaded a ten frame to show tenths.



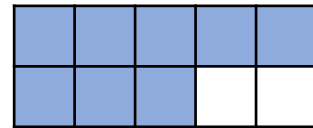
She thinks that if she shades one more box, she will have $\frac{5}{10}$ altogether.

Is she correct? Explain how you know.



R

2b. Mia has shaded a ten frame to show tenths.



She thinks that if she shades one more box, she will have $\frac{8}{10}$ altogether.

Is she correct? Explain how you know.



R

3a. Eve and Kian are looking at two statements.

A. $\frac{1}{10}$ more than $\frac{4}{10}$ is $\frac{14}{10}$.

B. $\frac{4}{10}$ more than $\frac{2}{10}$ is $\frac{6}{10}$.

Which statement is true? Explain why.



R

3b. Ivy and Ismail are looking at two statements.

A. $\frac{3}{10}$ more than $\frac{2}{10}$ is $\frac{6}{10}$.

B. $\frac{2}{10}$ more than $\frac{6}{10}$ is $\frac{8}{10}$.

Which statement is true? Explain why.



R

Count in Tenths

4a. Use the clues given to find the missing fraction.

I count forwards two tenths.

My answer is $\frac{12}{10}$.

What fraction did I start with?



PS

Count in Tenths

4b. Use the clues given to find the missing fraction.

I count forwards four tenths.

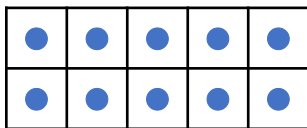
My answer is $\frac{13}{10}$.

What fraction did I start with?



PS

5a. Kay is using counters to show tenths.



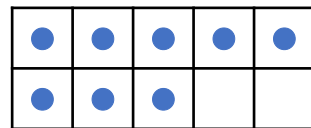
She thinks that if she adds one more counter, she will have $\frac{12}{10}$ altogether.

Is she correct? Explain how you know.



R

5b. Sasha is using counters to show tenths.



She thinks that if she adds three more counters, she will have $\frac{5}{10}$ altogether.

Is she correct? Explain how you know.



R

6a. Sara and Nia are looking at two statements.

A. Six tenths less than $\frac{11}{10}$ is $\frac{16}{10}$.

B. $\frac{5}{10}$ less than $\frac{12}{10}$ is seven tenths.

Which statement is true? Explain why.



R

6b. Maisie and Kai are looking at two statements.

A. Three tenths less than $\frac{12}{10}$ is $\frac{9}{10}$.

B. $\frac{4}{10}$ less than $\frac{13}{10}$ is ten tenths.

Which statement is true? Explain why.



R

Count in Tenths

7a. Use the clues given to find the missing fraction.

I count forwards $\frac{6}{10}$.

I count backwards nine tenths.

My answer is $1\frac{4}{10}$.

What fraction did I start with?



PS

Count in Tenths

7b. Use the clues given to find the missing fraction.

I count backwards ten tenths.

I count forwards seven tenths

My answer is $1\frac{2}{10}$.

What fraction did I start with?



PS

8a. Lana is using counters to show one and seven tenths.

She thinks that if she takes away two counters, she will have $\frac{16}{10}$ altogether.

Is she correct? Explain how you know.



R

8b. Jed is using counters to show one and two tenths.

He thinks that if he adds two more counters, he will have $\frac{13}{10}$ altogether.

Is he correct? Explain how you know.



R

9a. Tommy and Violet are looking at three statements.

A. Twelve tenths less than $1\frac{5}{10}$ is $\frac{2}{10}$.

B. $\frac{8}{10}$ less than ten tenths is $\frac{3}{10}$.

C. $\frac{4}{10}$ less than $1\frac{2}{10}$ is $\frac{8}{10}$.

Which statement is true? Explain why.



R

9b. Kayla and Eva-Rose are looking at three statements.

A. Five tenths less than $\frac{10}{10}$ is $\frac{4}{10}$.

B. $\frac{8}{10}$ more than eight tenths is $1\frac{6}{10}$.

C. $\frac{7}{10}$ tenths more than $\frac{10}{10}$ is $2\frac{2}{10}$.

Which statement is true? Explain why.



R

Reasoning and Problem Solving Count in Tenths

Developing

- 1a. $\frac{7}{10}$
2a. Yes, one more will make $\frac{5}{10}$.
3a. B is correct because six tenths is two tenths more than four tenths.

Expected

- 4a. $\frac{10}{10}$
5a. No, one more will make $\frac{11}{10}$.
6a. B is correct because $\frac{12}{10}$ is five tenths more than seven tenths.

Greater Depth

- 7a. $1\frac{7}{10}$ or $\frac{17}{10}$
8a. No, two counters less will make $\frac{15}{10}$.
9a. C is correct because $1\frac{2}{10}$ is four tenths more than eight tenths.

Reasoning and Problem Solving Count in Tenths

Developing

- 1b. $\frac{6}{10}$
2b. No, there are $\frac{8}{10}$ there already.
3b. B is correct because eight tenths is two tenths more than six tenths.

Expected

- 4b. $\frac{9}{10}$
5b. No, three more tenths will make $\frac{11}{10}$.
6b. A is correct because 9 tenths is three tenths less than $\frac{12}{10}$.

Greater Depth

- 7b. $1\frac{5}{10}$ or $\frac{15}{10}$
8b. No, two more counters will make $\frac{14}{10}$.
9b. B is correct because $1\frac{6}{10}$ is eight tenths more than eight tenths.