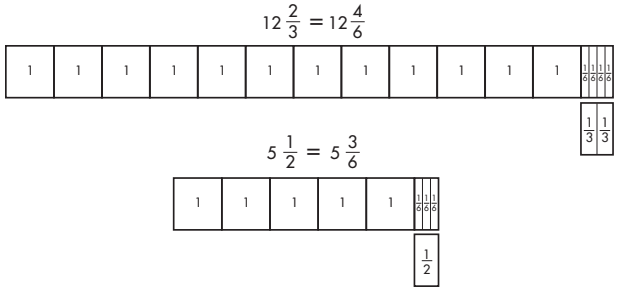
Name _____

Reteaching
10-5

Subtracting Mixed Numbers

The Plainville Zoo has had elephants for $12\frac{2}{3}$ years. The zoo has had zebras for $5\frac{1}{2}$ years. How many years longer has the zoo had elephants?

Step 1: Write equivalent fractions with the least common denominator. You can use fraction strips.



Step 2: Find the difference of $12\frac{4}{6} - 5\frac{3}{6}$. Subtract the fractions. Then subtract the whole numbers. Simplify the difference if possible.

$\frac{4}{6} - \frac{3}{6} = \frac{1}{6}$ $\qquad$ $12 - 5 = 7$

So, $12\frac{2}{3} - 5\frac{1}{2} = 7\frac{1}{6}$ years.

Example 2: Sometimes you may have to rename a fraction so you can subtract. Find the difference of $6 - 2\frac{3}{8}$.

$6 \longrightarrow$ rename $\longrightarrow 5\frac{8}{8}$

$$\begin{array}{r} 5\frac{8}{8} \\ -\ 2\frac{3}{8} \\ \hline 3\frac{5}{8} \end{array}$$

For **1** through **4**, find each difference. Simplify, if possible.
Remember: You may have to rename a fraction in order to subtract.

1. $4\frac{3}{5} - 2\frac{1}{3}$

2. $5\frac{6}{7} - 1\frac{1}{2}$

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

4. $6\frac{5}{6} - 5\frac{1}{2}$

5. To find the difference of $7 - 3\frac{5}{12}$, how do you rename the 7?

6. Robyn ran $5\frac{3}{4}$ miles last week. She ran $4\frac{1}{10}$ miles this week. How many more miles did she run last week?

Name _____

Practice
10-5

Subtracting Mixed Numbers

For **1** through **10**, find each difference. Simplify, if possible.

1. $10\frac{3}{4} - 7\frac{1}{4}$ _____

2. $7\frac{3}{7} - 2\frac{8}{21}$ _____

3. $3 - 2\frac{2}{3}$ _____

4. $17\frac{7}{8} - 12\frac{3}{12}$ _____

5. $9\frac{5}{9} - 6\frac{5}{6}$ _____

6. $4\frac{3}{4} - 2\frac{2}{3}$ _____

7. $6\frac{1}{4} - 3\frac{1}{3}$ _____

8. $5\frac{1}{5} - 3\frac{7}{8}$ _____

9. $8\frac{2}{7} - 7\frac{1}{3}$ _____

10. $2\frac{9}{10} - 2\frac{1}{3}$ _____

The table shows the length and width of several kinds of bird eggs.

Egg Sizes in Inches (in.)

Bird	Length	Width
Canada goose	$3\frac{2}{5}$	$2\frac{3}{10}$
Robin	$\frac{3}{4}$	$\frac{3}{5}$
Turtledove	$1\frac{1}{5}$	$\frac{9}{10}$
Raven	$1\frac{9}{10}$	$1\frac{3}{10}$

11. How much longer is the Canada goose egg than the raven egg?

_____

12. How much wider is the turtledove egg than the robin egg?

_____

13. Which is the difference of $21\frac{15}{16} - 18\frac{3}{4}$?

A $2\frac{7}{16}$ **B** $2\frac{9}{16}$ **C** $3\frac{3}{16}$ **D** $3\frac{9}{16}$

14. Explain why it is necessary to rename $4\frac{1}{4}$ if you subtract $\frac{3}{4}$ from it.

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