5.7 Subtracting with Mixed Numbers

Quick Review

At Home
At School

To subtract mixed numbers, follow these steps:

- Change the fractions to equivalent fractions with common denominators.
- Subtract the fractions.
- Then subtract the whole numbers.

Sometimes, you need to write improper fractions to subtract mixed numbers.

For example, to subtract: $3\frac{1}{8} - 2\frac{1}{2}$

$3\frac{1}{8} - 2\frac{1}{2} = 3\frac{1}{8} - 2\frac{4}{8}$

Since $\frac{1}{8} < \frac{4}{8}$, write $3\frac{1}{8}$ as $3 + \frac{1}{8}$, then take 1 from 3 and write it as $\frac{8}{8}$.

$3\frac{1}{8} = 2\frac{8}{8} + \frac{1}{8}$

$= 2\frac{9}{8}$

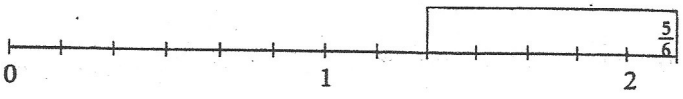
So, $3\frac{1}{8} - 2\frac{1}{2} = 2\frac{9}{8} - 2\frac{4}{8}$

$= \frac{5}{8}$

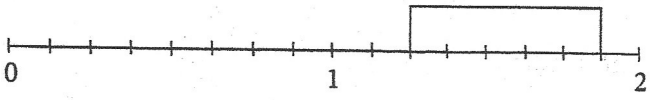
Practice

1. Write a subtraction equation for each picture.

a) _____



b) _____



2. Subtract.

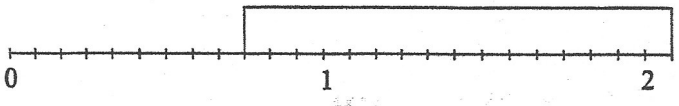
a) $3\frac{7}{8} - 1\frac{5}{8} =$ _____

b) $8\frac{3}{4} - 2\frac{1}{4} =$ _____

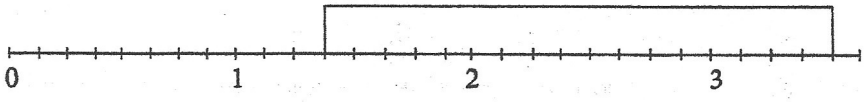
c) $5\frac{7}{12} - 3\frac{1}{12} =$ _____

3. Write a subtraction equation for each picture.

a) _____



b) _____



4. We know that $\frac{1}{2} - \frac{1}{3} = \frac{1}{6}$.

Use this result to find each sum.

a) $5\frac{1}{2} - 1\frac{1}{3} =$ ___

b) $2\frac{1}{2} - 1\frac{1}{3} =$ ___

c) $4\frac{1}{2} - \frac{1}{3} =$ ___

5. Regroup to subtract.

a) $2 - \frac{1}{3} = 1\frac{}{3} -$ ___

$=$ ___

b) $3 - 1\frac{5}{8} =$ _____

$=$ ___

c) $4 - \frac{2}{5} =$ _____

$=$ ___

6. Subtract. Regroup if necessary.

a) $4\frac{1}{9} - 2\frac{2}{3} =$ _____

b) $4 - 1\frac{1}{2} =$ _____

c) $3\frac{4}{7} - 1\frac{1}{2} =$ _____

d) $7\frac{1}{4} - 3\frac{5}{6} =$ _____

7. George swam $8\frac{3}{4}$ laps on Monday and $6\frac{1}{5}$ laps on Tuesday.

How many more laps did he swim on Monday than on Tuesday?

_____

8. Armin has 3 flower gardens. He bought 5 bags of mulch.

Armin used $1\frac{1}{2}$ bags of mulch on each garden.

How much mulch is left? ___