Name _____ Date _____

1. Subtract.

a. $3\frac{1}{4} - 2\frac{1}{3} =$

$1 + \left(\frac{3}{12} - \frac{4}{12}\right)$

$= \left(\frac{12}{12} + \frac{3}{12}\right) - \frac{4}{12}$

$= \frac{15}{12} - \frac{4}{12} = \boxed{\frac{11}{12}}$

b. $3\frac{2}{3} - 2\frac{3}{4} =$

$1 + \left(\frac{8}{12} - \frac{9}{12}\right) = \left(\frac{12}{12} + \frac{8}{12}\right) - \frac{9}{12}$

$= \frac{20}{12} - \frac{9}{12} = \boxed{\frac{11}{12}}$

c. $6\frac{1}{5} - 4\frac{1}{4} =$

$2 + \left(\frac{4}{20} - \frac{5}{20}\right)$

$= \left(\frac{40}{20} + \frac{4}{20}\right) - \frac{5}{20}$

$\frac{44}{20} - \frac{5}{20} = \frac{39}{20} \left\langle \begin{matrix} \frac{20}{20} \\ \frac{19}{20} \end{matrix} \right. = \boxed{\frac{19}{20}}$

d. $6\frac{3}{5} - 4\frac{3}{4} =$

$2 + \left(\frac{12}{20} - \frac{15}{20}\right) = \left(\frac{40}{20} + \frac{12}{20}\right) - \frac{15}{20}$

$= \frac{52}{20} - \frac{15}{20} = \frac{37}{20} \left\langle \begin{matrix} \frac{20}{20} \\ \frac{17}{20} \end{matrix} \right. = \boxed{\frac{17}{20}}$

e. $5\frac{2}{7} - 4\frac{1}{3} =$

$1 + \left(\frac{6}{21} - \frac{7}{21}\right)$

$= \left(\frac{21}{21} + \frac{6}{21}\right) - \frac{7}{21} = \frac{27}{21} - \frac{7}{21} = \boxed{\frac{20}{21}}$

f. $8\frac{2}{3} - 3\frac{5}{7} =$

$4 \swarrow \frac{14}{21} + \frac{21}{21}$

$5\frac{2}{3} - \frac{5}{7} = 5\frac{14}{21} - \frac{15}{21} = 4\frac{35}{21} - \frac{15}{21}$

$= \boxed{4\frac{20}{21}}$

g. $18\frac{3}{4} - 5\frac{7}{8} =$

$12 \swarrow \frac{12}{16} + \frac{16}{16}$

$13\frac{3}{4} - \frac{7}{8} = 13\frac{12}{16} - \frac{14}{16}$

$= 12\frac{28}{16} - \frac{14}{16} = 12\frac{14 \div 2}{16 \div 2} = \boxed{12\frac{7}{8}}$

h. $17\frac{1}{5} - 2\frac{5}{8} =$

$14 \swarrow \frac{8}{40} + \frac{40}{40}$

$15\frac{1}{5} - \frac{5}{8} = 15\frac{8}{40} - \frac{25}{40} = 4\frac{48}{40} - \frac{25}{40}$

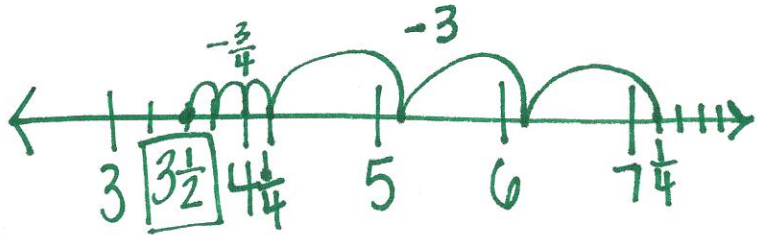
$= \boxed{4\frac{23}{40}}$

© 2014 Common Core, Inc. All rights reserved. commoncore.org

2. Tony wrote the following:

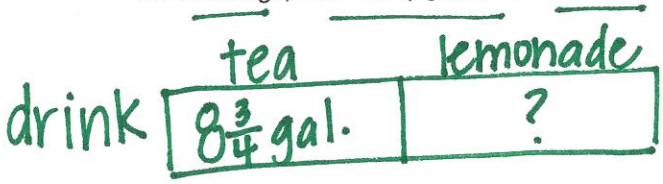
$$7\frac{1}{4} - 3\frac{3}{4} = 4\frac{1}{4} - \frac{3}{4}$$

Is Tony's statement correct? Draw a number line to support your answer.



Tony's statement is correct.

3. Ms. Sanger blended $8\frac{3}{4}$ gallons of iced tea with some lemonade for a picnic. If there were $13\frac{2}{5}$ gallons of the beverage, how many gallons of lemonade did she use?



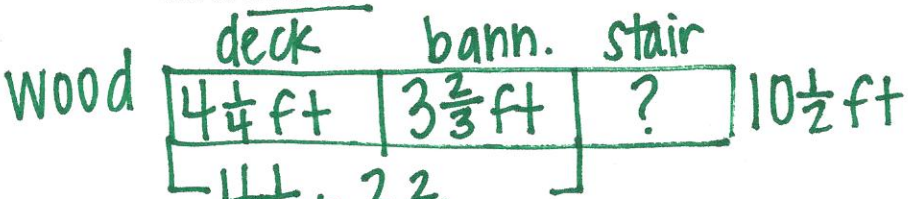
She used $4\frac{13}{20}$ gallons of lemonade in the drink.

$13\frac{2}{5} - 8\frac{3}{4} = 5\frac{2}{5} - \frac{3}{4}$

$= 4\frac{7}{5} - \frac{3}{4} = 4\frac{28}{20} - \frac{15}{20}$

$= \boxed{4\frac{13}{20}}$

4. A carpenter has $10\frac{1}{2}$ feet of wooden plank. He cuts off $4\frac{1}{4}$ feet to replace the slat of a deck and $3\frac{2}{3}$ feet to repair a bannister. He uses the rest of the plank to fix a stair. How many feet of wood does the carpenter use to fix the stair?



$4\frac{1}{4} + 3\frac{2}{3}$

$= 7\frac{3}{12} + \frac{8}{12}$

$= 7\frac{11}{12}$

$10\frac{1}{2} - 7\frac{11}{12} = 3\frac{1}{2} - \frac{11}{12}$

$= 2\frac{3}{2} - \frac{11}{12} = 2\frac{18}{12} - \frac{11}{12}$

$= \boxed{2\frac{7}{12}}$

He used $2\frac{7}{12}$ feet of the plank to fix the stair.

© 2014 Common Core, Inc. All rights reserved. commoncore.org