Day 7: Adding and Subtracting Fractions

1. Add or subtract the following fractions.

a. $\dfrac{2}{3}+\dfrac{2}{7}$

$\dfrac{14}{21}+\dfrac{6}{21}=\boxed{\dfrac{20}{21}}$

b. $\dfrac{5}{7}+\dfrac{1}{2}$

$\dfrac{10}{14}+\dfrac{7}{14}=\boxed{\dfrac{17}{14}\text{ or }1\dfrac{3}{14}}$

c. $\dfrac{3}{4}-\dfrac{2}{7}$

$\dfrac{21}{28}-\dfrac{8}{28}=\boxed{\dfrac{13}{28}}$

d. $\dfrac{5}{6}-\dfrac{1}{4}$

$\dfrac{10}{12}-\dfrac{3}{12}=\boxed{\dfrac{7}{12}}$

2. Nadia spent $\dfrac{1}{4}$ of her money on a shirt and $\dfrac{2}{5}$ of her money on new shoes. What fraction of Nadia's money was spent? What fraction of her money is left?

<u>Spent</u>

$\dfrac{1}{4}+\dfrac{2}{5}$

$\dfrac{5}{20}+\dfrac{8}{20}=\boxed{13/20 \text{ of her money}}$

<u>Leftover</u>

$1-13/20$

$20/20 - 13/20 = \boxed{7/20 \text{ remaining}}$

3. Carlos wants to practice piano 2 hours each day. He practices piano for $\dfrac{3}{4}$ hour before school and $\dfrac{7}{10}$ hour when he gets home. How many hours has Carlos practiced piano? How much longer does he need to practice before going to bed in order to meet his goal?

<u>Practiced</u>

$\dfrac{3}{4}+\dfrac{7}{10}$

$\dfrac{15}{20}+\dfrac{14}{20}=\boxed{\dfrac{29}{20}\text{ or }1\dfrac{9}{20}\text{ hours of his goal}}$

<u>Remaining</u>

$2 - 29/20$ or $2-1\,9/20$

$40/20 - 29/20 = \boxed{11/20 \text{ of an hour to meet his goal}}$

4. Mr. Kelly used $\dfrac{5}{8}$ of a tank of gas on a trip to visit relatives for the weekend and another one half of a tank commuting to work the next week. He then took another weekend trip and used $\dfrac{1}{4}$ tank of gas. How many tanks of gas did Mr. Kelly use altogether?

$\dfrac{5}{8}+\dfrac{1}{2}+\dfrac{1}{4}$

$\dfrac{5}{8} \quad \dfrac{4}{8} \quad \dfrac{2}{8}=\boxed{\dfrac{11}{8}\text{ or }1\dfrac{3}{8}\text{ tanks of gas}}$

5. Add or subtract the following fractions.

a. $3\dfrac{1}{4}+3\dfrac{5}{8}$

$3\dfrac{2}{8}+3\dfrac{5}{8}$

$\boxed{6\dfrac{7}{8}}$

b. $5\dfrac{2}{7}-4\dfrac{2}{3}$

$4\,5\dfrac{\overset{27}{\cancel{6}}}{21}-4\dfrac{14}{21}$

$\boxed{\dfrac{13}{21}}$

c. $5\dfrac{1}{2}-1\dfrac{3}{4}$

$4\,5\dfrac{\cancel{2}}{4}-1\dfrac{3}{4}$

$\boxed{3\dfrac{3}{4}}$

d. $4\dfrac{2}{3}+6\dfrac{1}{5}$

$4\dfrac{10}{15}+6\dfrac{3}{15}$

$\boxed{10\dfrac{13}{15}}$