3.2 Practice – Adding Rational Numbers

1. Determine each sum.

   a) $-\dfrac{3}{4}+\dfrac{1}{2}$

   b) $\dfrac{3}{4}+\dfrac{1}{2}$

   c) $\dfrac{3}{4}+\left(-\dfrac{1}{2}\right)$

   d) $-\dfrac{3}{4}+\left(-\dfrac{1}{2}\right)$

2. Sarah borrowed $40.25 from her parents for a new sweater. She earns $17.50 for a night of baby-sitting and gives this to her parents.

   a) Write an addition statement to represent this situation.

   b) How much does Sarah now owe?

3. Determine each sum.

   a) $-\dfrac{2}{3}+\dfrac{1}{2}$

   b) $\dfrac{4}{5}+\left(-\dfrac{1}{3}\right)$

   c) $-\dfrac{11}{4}+\left(-\dfrac{6}{5}\right)$

   d) $\dfrac{13}{5}+\dfrac{9}{2}$

e) $-2\frac{1}{3}+\left(-1\frac{3}{4}\right)$

f) $\frac{9}{5}+\left(-\frac{17}{6}\right)$

g) $-3\frac{3}{4}+4\frac{5}{8}$

h) $1\frac{5}{6}+\left(-5\frac{2}{3}\right)$

4. Determine each sum.

a) $-3.6+(-21.9)$ **b)** $-0.81+2.4$ **c)** $9.78+(-13.33)$ **d)** $4.88+(-12.26)$

5. The table shows the money earned and spent by Lucille in the first 6 months of running her new business. Did Lucille's business make a profit? Use rational numbers in your explanation.

Item	Income	Expense
New tables and chairs		$545.50
New stove		$978.44
Profit on food	$2115.70	
Repair of roof		$888.00
Profit on coffee	$2570.40	
Salary of part-time cook		$2540.20

3.2 Practice – Answers

1. **a)** $-\frac{1}{4}$ **b)** $1\frac{1}{4}$ **c)** $\frac{1}{4}$ **d)** $-1\frac{1}{4}$
2. **a)** $-40.25 + 17.50 = -22.75$ **b)** Sarah now owes $22.75.
3. **a)** $-\frac{1}{6}$ **b)** $\frac{7}{15}$ **c)** $-3\frac{19}{20}$ **d)** $7\frac{1}{10}$ **e)** $-4\frac{1}{12}$ **f)** $-1\frac{1}{30}$ **g)** $\frac{7}{8}$ **h)** $-3\frac{5}{6}$
4. **a)** -25.5 **b)** 1.59 **c)** -3.55 **d)** -7.38
5. $(-545.50) + (-978.44) + 2115.70 + (-888.00) + 2570.40 + (-2540.20) = -266.04$, so she is in debt $266.04 after her first 6 months.