Student Activity Book

Fraction Operations (SAB p. 423)
Homework
Questions 1–5

1. Rule: Add $\frac{1}{2}$

Input	Output
$\frac{3}{2}$	$\frac{4}{2} = 1$
$\frac{2}{3}$	$\frac{7}{6} = 1\frac{1}{6}$
$\frac{7}{10}$	$\frac{12}{10} = 1\frac{2}{10} = 1\frac{1}{5}$
$\frac{1}{4}$	$\frac{3}{4}$
$3\frac{1}{3}$	$3\frac{5}{6}$

2. Rule: Subtract $\frac{1}{2}$

Input	Output
$\frac{7}{2}$	$\frac{6}{2} = 3$
$\frac{4}{5}$	$\frac{3}{10}$
$\frac{9}{10}$	$\frac{4}{10} = \frac{2}{5}$
$\frac{6}{7}$	$\frac{5}{14}$
2	$1\frac{1}{2}$

3. Rule: Multiply by $\frac{1}{2}$

Input	Output
$\frac{2}{3}$	$\frac{2}{6} = \frac{1}{3}$
$\frac{1}{4}$	$\frac{1}{8}$
5	$\frac{5}{2} = 2\frac{1}{2}$
$1\frac{1}{2}$	$\frac{3}{4}$
$\frac{3}{8}$	$\frac{3}{16}$

4. Rule: Divide by $\frac{1}{2}$

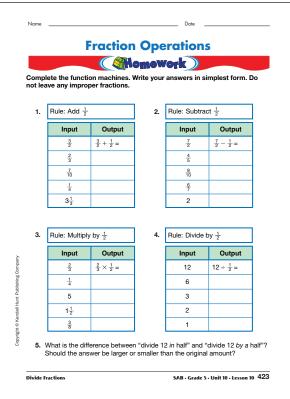| Input	Output
12	24
6	12
3	6
2	4
1	2

5. Possible response: 12 divided in half is $12 \div 2 = 6$. 12 divided by a half is $12 \div \frac{1}{2} = 24$. You are trying to find out how many halves are in 12, so the answer (24) will be greater than the original amount (12.)

Name _____   Date _____

Fraction Operations

Homework

Complete the function machines. Write your answers in simplest form. Do not leave any improper fractions.

1. Rule: Add $\frac{1}{2}$

Input	Output
$\frac{3}{2}$	$\frac{3}{2} + \frac{1}{2} =$
$\frac{2}{3}$	
$\frac{7}{10}$	
$\frac{1}{4}$	
$3\frac{1}{3}$	

2. Rule: Subtract $\frac{1}{2}$

Input	Output
$\frac{7}{2}$	$\frac{7}{2} - \frac{1}{2} =$
$\frac{4}{5}$	
$\frac{9}{10}$	
$\frac{6}{7}$	
2	

3. Rule: Multiply by $\frac{1}{2}$

Input	Output
$\frac{2}{3}$	$\frac{2}{3} \times \frac{1}{2} =$
$\frac{1}{4}$	
5	
$1\frac{1}{2}$	
$\frac{3}{8}$	

4. Rule: Divide by $\frac{1}{2}$

Input	Output
12	$12 \div \frac{1}{2} =$
6	
3	
2	
1	

5. What is the difference between "divide 12 *in* half" and "divide 12 *by a* half"? Should the answer be larger or smaller than the original amount?

***Student Activity Book* - Page 423**