Name_____ Date_____

Answers

Strategies will vary; sample answers and observations are provided.

Part A: Dividing by a Fraction with the Same Denominator

Set 1	Set 2
a) $\frac{7}{2} \div \frac{1}{2} = 7$	a) $\frac{5}{4} \div \frac{1}{4} = 5$
b) $\frac{8}{5} \div \frac{2}{5} = 4$	b) $\frac{6}{10} \div \frac{3}{10} = 2$
c) $\frac{5}{3} \div \frac{1}{3} = 5$	c) $\frac{7}{9} \div \frac{1}{9} = 7$

The pattern that I notice is

The answer is the first numerator divided by the second numerator.

I can remember, when dividing fractions with the same denominators, that

I can just divide the numerators.

Name_____ Date_____

Answers (cont'd)

Part B: Dividing a Whole Number by a Unit Fraction

Set 1	**Set 2**
a) $7 \div \frac{1}{2} = 14$	a) $6 \div \frac{1}{5} = 30$
b) $3 \div \frac{1}{5} = 15$	b) $5 \div \frac{1}{4} = 20$
c) $4 \div \frac{1}{3} = 12$	c) $2 \div \frac{1}{10} = 20$

The pattern that I notice is

The answer is the product of the whole number and the denominator of the divisor.

I can remember, when dividing a whole number by a unit fraction, that

I can just multiply the whole number and the denominator of the divisor (or the reciprocal of the divisor).

Answers (cont'd)

Part C: Dividing Fractions with Different Denominators

Set 1	**Set 2**
a) $\dfrac{3}{2} \div \dfrac{3}{5} = \dfrac{3}{2} \times 5 \div 3$	a) $\dfrac{7}{4} \div \dfrac{3}{5} = \dfrac{7}{4} \times 5 \div 3$
$= \dfrac{15}{2} \div 3$	$= \dfrac{35}{4} \div 3$
$= \dfrac{15}{2} \times \dfrac{1}{3}$	$= \dfrac{35}{4} \times \dfrac{1}{3}$
$= \dfrac{15}{6}$ (or $2\dfrac{1}{2}$)	$= \dfrac{35}{12}$ (or $2\dfrac{11}{12}$)
b) $\dfrac{2}{7} \div \dfrac{1}{3} = \dfrac{2}{7} \times 3 \div 1$	b) $1\dfrac{5}{11} \div \dfrac{3}{4} = \dfrac{16}{11} \times 4 \div 3$
$= \dfrac{6}{7}$	$= \dfrac{64}{11} \div 3$
c) $1\dfrac{1}{8} \div \dfrac{3}{4} = 1\dfrac{1}{8} \times 4 \div 3$	$= \dfrac{64}{11} \times \dfrac{1}{3}$
$= \dfrac{9}{8} \times 4 \div 3$	$= \dfrac{64}{33}$ (or $1\dfrac{31}{33}$)
$= \dfrac{36}{8} \times \dfrac{1}{3}$	c) $1\dfrac{2}{3} \div \dfrac{5}{7} = \dfrac{5}{3} \times 7 \div 5$
$= \dfrac{36}{24}$ (or $1\dfrac{1}{2}$)	$= \dfrac{35}{3} \times \dfrac{1}{5}$
	$= \dfrac{35}{15}$ (or $2\dfrac{1}{3}$)

The pattern that I notice is

Before I simplify my answer, the numerator is equal to the product of the numerator of the dividend and the denominator of the divisor. The denominator is equal to the product of the denominator of the dividend and the numerator of the divisor.

I can remember, when dividing a whole number by a unit fraction, that I multiply by the reciprocal of the divisor.

Answers (cont'd)

Part D: Choosing a Division Strategy

You have identified different ways to divide fractions.
Think about which method you would like to use for each
of the following questions and then determine the quotient.
Strategies will vary.

Set 1	Set 2
a) $\frac{7}{4} \div \frac{1}{2} = \frac{14}{4}$ (or $3\frac{1}{2}$) I remembered that dividing by $\frac{1}{2}$ is the same as multiplying by 2. b) $\frac{6}{11} \div \frac{3}{4} = \frac{6}{11} \times 4 \div 3$ $= \frac{24}{11} \div 3$ $= \frac{24}{33}$ (or $\frac{8}{11}$) I multiplied by the reciprocal of the divisor. c) $1\frac{5}{8} \div \frac{1}{4} = \frac{13}{8} \div \frac{2}{8}$ $= \frac{13}{2}$ (or $6\frac{1}{2}$) I wrote the mixed number as an improper fraction, then expressed both fractions with the same denominator.	a) $\frac{3}{10} \div \frac{6}{5} = \frac{3}{10} \div \frac{12}{10}$ $= \frac{3}{12}$, or $\frac{1}{4}$ I expressed both fractions with the same denominator. b) $2\frac{1}{4} \div \frac{3}{8} = \frac{9}{4} \div \frac{3}{8}$ $= \frac{18}{8} \div \frac{3}{8}$ $= 6$ I wrote the mixed number as an improper fraction, then expressed both fractions with the same denominator. c) $1\frac{3}{4} \div \frac{5}{9} = \frac{7}{4} \div \frac{5}{9}$ $= \frac{7}{4} \times \frac{9}{5}$ $= \frac{63}{20}$ (or $3\frac{3}{20}$) I multiplied by the reciprocal of the divisor.