

**INTERMEDIATE ARITHMETIC:
INCLUDING EXERCISES IN SOLVING
SIMPLE ALGEBRAIC EQUATIONS
CONTAINING ONE UNKNOWN
QUANTITY, PP. 213-458**

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Intermediate Arithmetic: Including Exercises in Solving Simple Algebraic Equations Containing One Unknown Quantity, pp. 213-458 by John Henry Walsh

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JOHN HENRY WALSH

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INTERMEDIATE ARITHMETIC.

CHAPTER VI.

MIXED NUMBERS. — FEDERAL MONEY. — BILLS. — DENOMINATE NUMBERS. — DECIMALS. — MEASUREMENTS.

MIXED NUMBERS.

447. Oral Exercises.

How many halves in 1? How many fourths in 1? Six halves = ? 12 fourths = ? 3 thirds = ? 12 sixths = ?

448. Slate Exercises.

Add:

1. $7\frac{1}{2}$	2. $5\frac{3}{4}$	3. $18\frac{3}{8}$	4. $3\frac{1}{5}$	5. $74\frac{1}{3}$
18	39 $\frac{1}{4}$	150 $\frac{3}{8}$	$\frac{1}{5}$	3 $\frac{2}{3}$
<u>27$\frac{1}{2}$</u>	<u>17</u>	<u>57$\frac{3}{8}$</u>	<u>27$\frac{3}{5}$</u>	<u>$\frac{1}{3}$</u>

449. Oral Exercises.

$$\frac{1}{2} = ? \quad \frac{3}{4} = ? \quad \frac{4}{2} = ? \quad \frac{4}{2} = ? \quad 1\frac{1}{2} = ? \quad 1\frac{3}{2} = ?$$

450. A mixed number is a whole number and a fraction.

451. Reduce to a whole number or to a mixed number:

$$1\frac{2}{3} \quad 1\frac{6}{4} \quad 1\frac{7}{2} \quad 1\frac{8}{6} \quad 2\frac{3}{4} \quad 2\frac{1}{3} \quad 1\frac{1}{2}$$

452. Slate Exercises.

Add:

6. $3\frac{1}{2}$	7. $8\frac{3}{4}$	8. $9\frac{1}{2}$	9. $318\frac{1}{8}$	10. $87\frac{6}{10}$
95	$29\frac{1}{2}$	$48\frac{1}{4}$	$5\frac{1}{2}$	$17\frac{3}{4}$
$254\frac{1}{2}$	$78\frac{1}{4}$	$35\frac{3}{8}$	$52\frac{7}{8}$	$3\frac{6}{10}$
<u>$7\frac{1}{2}$</u>	<u>$6\frac{1}{2}$</u>	<u>$8\frac{1}{2}$</u>	<u>$1\frac{1}{2}$</u>	<u>$69\frac{1}{2}$</u>

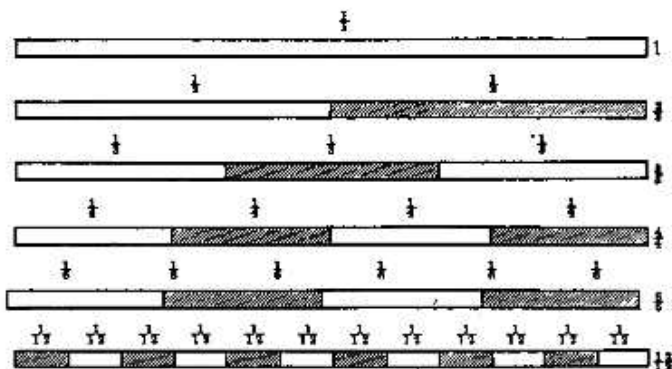
453. Oral Exercises.

How many quarts in a gallon?

What part of a gallon is a quart?

 $\frac{1}{2}$ gallon = how many quarts? $\frac{1}{2}$ = how many fourths?

How many quarts in a peck? What part of a peck is one quart? One-half peck is how many quarts? One-half peck = how many eighths?

 $\frac{1}{4}$ peck is how many quarts? $\frac{1}{4}$ = how many eighths? $\frac{3}{4}$ = how many eighths? $\frac{3}{4}$ = how many eighths?

454. Draw a line one foot long. Draw a second line of the same length; divide it into halves. Divide a third line of the same length into three equal parts. Divide three other lines, one into fourths, one into sixths, and one into twelfths.

How many inches in a foot? What part of a foot is one inch?
 $\frac{1}{2}$ foot = how many inches? $\frac{1}{2}$ = how many twelfths?
 $\frac{1}{3}$ = how many twelfths? $\frac{2}{3}$ = how many twelfths? Change
 $\frac{1}{2}$ to twelfths. Change $\frac{2}{3}$, $\frac{1}{4}$ to twelfths. How many twelfths =
 $\frac{1}{2}$? $\frac{2}{3}$? $\frac{3}{4}$? $\frac{4}{5}$? $\frac{5}{6}$? $\frac{6}{7}$?

$$\frac{1}{12} = \frac{1}{12}$$

$$\frac{2}{12} = \frac{1}{6}$$

$$\frac{3}{12} = \frac{1}{4} = \frac{3}{12}$$

$$\frac{4}{12} = \frac{1}{3} = \frac{4}{12}$$

$$\frac{5}{12} = \frac{5}{12}$$

$$\frac{6}{12} = \frac{1}{2}$$

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

$$\frac{8}{12} = \frac{2}{3} = \frac{8}{12}$$

How many inches in $\frac{1}{2}$ ft. + $\frac{1}{3}$ ft. + $\frac{1}{4}$ ft. + $\frac{1}{5}$ ft. + $\frac{1}{6}$ ft.?
 How many feet and inches?

How many 12ths in $\frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \frac{1}{5} + \frac{1}{6}$? Change to a mixed
 number. Change the fractional part to a different fraction hav-
 ing the same value.

What fraction of a dime is 1 cent? $\frac{1}{10}$ dime = how many
 cents? $\frac{1}{10} = \frac{1}{10}$.

$\frac{1}{2}$ dime = how many cents? $\frac{1}{2} = \frac{5}{10}$. Change $\frac{1}{2}$ to tenths. $\frac{2}{5}$. $\frac{3}{5}$. $\frac{4}{5}$.

Add $\frac{1}{2}$ dime, $\frac{1}{5}$ dime, and $\frac{1}{10}$ dime. How many cents? How
 many tenths = $\frac{1}{2} + \frac{1}{5} + \frac{1}{10}$? Can you change the answer to a
 different fraction having the same value?

455. Slate Exercises.

Add:

11. $91\frac{1}{2}$	12. $62\frac{1}{2}$	13. $84\frac{1}{2}$	14. $9\frac{1}{2}$	15. $31\frac{1}{2}$
$270\frac{1}{2}$	$53\frac{1}{2}$	$6\frac{1}{2}$	$16\frac{1}{2}$	$183\frac{1}{2}$
$3\frac{1}{2}$	$95\frac{1}{2}$	$17\frac{1}{2}$	$25\frac{1}{2}$	$2\frac{1}{2}$
$\frac{1}{10}$	4	$28\frac{1}{2}$	7	$30\frac{1}{2}$

456. Oral Exercises.

Show by a diagram that $\frac{1}{2}$ is the same as $\frac{2}{4}$.

How do we add $\frac{1}{2}$ and $\frac{1}{4}$? Show by a diagram.

How many hours in a day? In $\frac{1}{2}$ day? In $\frac{1}{3}$ day? In $\frac{1}{4}$
 day? In $\frac{1}{5}$ day? In $\frac{1}{6}$ day? In $\frac{1}{12}$ day?

Change $\frac{1}{2}$ to twenty-fourths. $\frac{1}{3}$. $\frac{1}{4}$. $\frac{1}{5}$. $\frac{1}{6}$. $\frac{1}{12}$.

Reduce $\frac{2}{3}$, $\frac{3}{4}$, $\frac{4}{5}$, $\frac{5}{6}$, $\frac{6}{7}$, $\frac{7}{8}$, $\frac{8}{9}$, $\frac{9}{10}$ to 24ths.