

Number Problems (Reciprocals and Partial Quotients)

Ex: # 12

The sum of the reciprocals of two consecutive integers is $\frac{7}{12}$. What are the integers?

Variable terms:

Number: _____ Reciprocal: _____

Number: _____ Reciprocal: _____

Equation:

Example #3 in book on page 570.

$$\frac{\text{dividend}}{\text{divisor}} = \text{Partial Quotient} + \frac{\text{remainder}}{\text{divisor}}$$

One number is 6 more than another number. If the greater number is divided by the lesser number, the partial quotient is 2 and the remainder is 1. Find the numbers.

Lesser number: _____ Greater number: _____ (Which is the divisor?)

Equation:

Literal Equations

Solving a formula for a designated variable.

Example: # 44

Solve for s: $A = \frac{r-s}{r+s}$

Uniform Motion Problems

$$T = \frac{D}{R} \quad (\text{comes from } R \cdot T = D)$$

Ex: # 50

A tourist drove 90 miles along a scenic highway and then took a 5 mile walk along a hiking trail. The driving rate was nine times the rate of speed while walking. The **total time** for driving and hiking was 3 hours. Find the tourist's rate of speed along the hiking trail.

Distance	÷	Rate	=	Time

Equation:

Ex: # 52

A river has a current that moves at 3 miles per hour. A boat can travel 38 miles with the current in the **same time** that it can travel 26 miles against the current. Find the speed of the boat in still water.

Distance	÷	Rate	=	Time

Equation:

Work Problems

$$\frac{t}{\text{person1}} + \frac{t}{\text{person2}} = 1 \quad \text{where } t \text{ represents the time together to complete 1 whole job}$$

Ex: #60

Working together, Lavern and Shirley can complete a job in 6 hours. Working alone, Lavern requires three times as much time as Shirley to do the job. How many hours does it take each of them to do the job working alone?

Equation: