

7.4 SETUP WP #39

WORD PROBLEM SETUP

STUDY TIP

39 KI:

DEFINE VARIABLES

X =

Y =

Remember
UNITS

Abbrev # Sign →
Number of

\$'s →
for dollars

DEFINE EQUATIONS

SOLVE

Answer in words.

7.4

39

KEY INFO

169 Granny Smiths

95 Golden Delicious

Pie needs 5 Granny + 3 delicious

Sauce needs 4 Granny + 2 delicious

$x = \#$ of pies

$y = \#$ of sauces

QUESTION \longrightarrow Variables

EQ1 = (Granny Smith)

$$5x + 4y = 169 \quad \checkmark$$

EQ2 = (Golden Delicious)

$$3x + 2y = 95 \quad \checkmark$$

SOLVE

$$\begin{array}{r} 5x + 4y = 169 \longrightarrow 5x + 4y = 169 \quad \downarrow + \\ -2(3x + 2y = 95) \longrightarrow -6x - 4y = -190 \quad \downarrow \end{array}$$

$$\frac{-x}{-1} = \frac{-21}{-1}$$

$x = 21$

FIND Y

$$3(21) + 2y = 95$$

$$63 + 2y = 95$$

$$\frac{-63}{-2} \quad \quad \quad -63$$

$$\frac{2y}{2} = \frac{32}{2}$$

$y = 16$

ANSWER You can make 21 apple pies
and 16 apple sauces