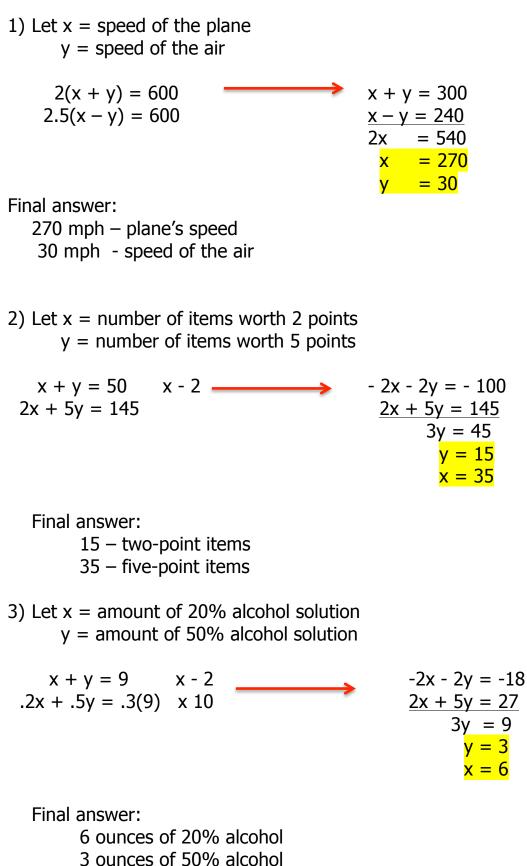
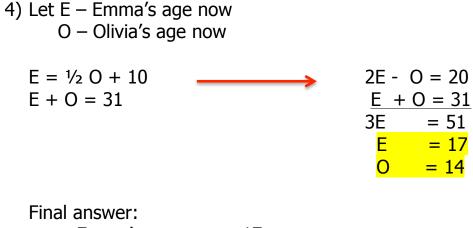
SOLUTIONS TO PRACTICE TEST





Emma's age now = 17 years Olivia's age now = 14 years

5) Let S = number of cups the small pitcher can hold L = number of cups the large pitcher can hold



Final answer:

Small pitcher can hold 2 cups. Large pitcher can hold 4 cups.

6) Let L = length of the rectangle W = width of the rectangle

$$2L + 2W = 54 \div 2$$

 $W = \frac{1}{2}L$
 $L + W = 27$
 $\frac{-L + 2W = 0}{3W = 27}$
 $W = 9$
 $L = 18$

Final answer: Length = 18 units Width = 9 units 7) Let t = tens digit
u = units digit
10t + u = the original number
10u + t = the number with the digits interchanged or reversed

$$t + u = 11$$

$$10u + t = 10y + u - 45$$

$$- 9t + 9u = -45$$

$$t + u = 11$$

$$-t + u = -5$$

$$2u = 6$$

$$u = 3$$

$$t = 8$$

Final answer: The number is 83.

8) Let x, y, z be the numbers.

$$x + y + z = 14$$

$$z = 4x$$

$$x + 2z = 18$$
Use substitution to solve for x:
$$x + 2(4x) = 18$$

$$9x = 18$$

$$x = 2$$

$$z = 4(2)$$

$$z = 8$$

$$2 + y + 8 = 14$$

$$y = 4$$
Final answer:

<mark>x = 2; y = 4; z = 8</mark>