

**HKTA The Yuen Yuen Institute No.2 Secondary School**  
**F.1 Mathematics – Reinforcement Exercises in word problems**

Name: \_\_\_\_\_ Class: \_\_\_\_\_ ( ) Date: \_\_\_\_\_

**Hints**

- $x$  is more than  $y$  by 10  
 $\therefore x > y$  (Compare the size of 2 numbers)  
 $\therefore y = x - 10$  ( $x$  is larger)
- $x$  is less than  $y$  by 10  
 $\therefore y > x$  (Compare the size of 2 numbers)  
 $\therefore y = x + 10$  ( $y$  is larger)

1. The age of Ben is  $x$ .

The age of Ben is more than the age of Mary by 12.

(a) Express the age of Mary with  $x$ .

\_\_\_\_\_

$\therefore \text{Age of Ben} > \text{Age of Mary}$

$\therefore \text{Age of Mary} = (x - 12 / x + 12)$

(b) Sum of their ages is 36.

Find  $x$ .

$\text{Age of Ben} + \text{Age of Mary} = 36$

( ) + ( )

$$(x) + (x - 12) = 36$$

2. The age of Anson is  $y$ .

The age of Anson is less than the age of Keith by 12.

(a) Express the age of Keith with  $y$ .

\_\_\_\_\_

$\therefore \text{Age of } \underline{\hspace{2cm}} > \text{Age of } \underline{\hspace{2cm}}$

$\therefore \text{Age of Keith} = (y - 12 / y + 12)$

(b) Sum of their ages is 36.

Find  $y$ .

$\text{Age of Anson} + \text{Age of Keith} = 36$

( ) + ( )

$$(y) + (y + 12) = 36$$

## Hints

- $x$  is twice of  $y$  /  $x$  is 2 times of  $y$        $x$  是  $y$  的 2 倍  
 $\therefore x > y$  (Compare the size of 2 numbers)  
 $\therefore y = x \div 2 = \frac{x}{2}$  ( $x$  is larger)
- $x$  is half of  $y$        $x$  是  $y$  的一半  
 $\therefore y > x$  (Compare the size of 2 numbers)  
 $\therefore y = x \times 2 = 2x$  ( $y$  is larger)

3. The age of Ben is  $x$ .

The age of Ben is 3 times of the age of Mary.

(a) Express the age of Mary with  $x$ .

\_\_\_\_\_

$\therefore \text{Age of Ben} > \text{Age of Mary}$

$\therefore \text{Age of Mary} = (x \div 3 / x \times 3)$

(b) Sum of their ages is 36.

Find  $x$ .

$\text{Age of Ben} + \text{Age of Mary} = 36$

(      ) + (      )

$$x + \frac{x}{3} = 36$$

4. The age of Anson is  $y$ .

The age of Anson is half of the age of Keith.

(a) Express the age of Keith with  $y$ .

\_\_\_\_\_

$\therefore \text{Age of } \underline{\hspace{2cm}} > \text{Age of } \underline{\hspace{2cm}}$

$\therefore \text{Age of Keith} = (y \div 2 / y \times 2)$

(b) Sum of their ages is 36.

Find  $y$ .

$\text{Age of Anson} + \text{Age of Keith} = 36$

(      ) + (      )

$$y + 2y = 36$$

5. Consider two numbers. One of them is less than the other by 8. The sum of the two numbers is 30. Suppose the smaller one is  $x$ . Find the two numbers.



➤ Smaller number + Larger number = 30  
 (  $x$  ) (  $x + 8$  )

$$(x) + (x + 8) = 30$$

∴ The smaller number =  $x =$  \_\_\_\_\_. The larger number =  $x + 8 =$  ( ) + 8 = \_\_\_\_\_.

6. Consider two numbers. One of them is less than the other by 13. The sum of the two numbers is 31. Suppose the larger one is  $y$ . Find the two numbers.



➤ Smaller number + Larger number = 31  
 ( \_\_\_\_\_ ) (  $y$  )

∴ The smaller number = \_\_\_\_\_ = \_\_\_\_\_ = \_\_\_\_\_. The larger number =  $y =$  \_\_\_\_\_.

7. In an English language test, Anson got  $x$  marks. The mark of Sam was twice that of Anson. George got 85 marks and his mark was 5 more than Sam's. Find  $x$ .



∴ George's mark > Sam's marks  
 ∴ Sam's marks = George's marks - 5  
 $(2x) = 85 - 5$

∴ Sam's marks > Anson's marks  
 ∴ Sam's marks = Anson's marks  $\times$  2  
 $= 2x$

8. Crystal and her mother bought some milk. It is known that the amount Crystal's mother drank is 50% more than the amount Crystal drank. If they together drank 800mL of milk, find the amount of milk Crystal drank.

$$\begin{aligned} \text{Crystal drank} + \text{Mother drank} &= 800 \\ (x) \end{aligned}$$

$$\begin{aligned} \text{Mother drank} &= (1+50\%) \text{ of Crystal drank} \\ &= 1.5x \end{aligned}$$

Let  $x$  be the amount of Crystal drank.

9. The weight of a mango is  $w$  g. A watermelon weighs 200 g more than 3 mangos.

(a) Express the weight of the watermelon in terms of  $w$ .

(b) If the weight of the watermelon is 1250 g, find the weight of the mango.

10. A convenience store has  $n$  packs of 6 chocolate bars. After selling 3 packs, 90 bars are left. Find  $n$ .