

## Equation Practice

### 1. Solve the Equation

(1)  $4x + 15 = 6x + 3$

(2)  $12 - 3x = 7x - 18$

(3)  $13 - 2(2x - 3) = 5 - (x - 2)$

(4)  $7(3x - 2) = 80 - (2x + 2)$

(5)  $6x - (4 - x) = 17$

(6)  $29(3x + 2) = 58(2x - 3)$

(7)  $\frac{2}{5}x + 40 + (x - \frac{2}{5}x - 40) \times \frac{2}{5} + 56 = x$

(8)  $\frac{2y - 1}{4} = 1 - \frac{3 - y}{8}$

$$(9) \quad \frac{x-100}{50} - 2 = \frac{x-100}{60} + 5$$

$$(10) \quad \frac{0.3x-0.6}{0.1} = \frac{0.03x+0.02}{0.02} - 1$$

$$(11) \quad \frac{3}{2x-7} + \frac{2}{5} = 1$$

$$(12) \quad \frac{1+x}{7+x} = \frac{3}{5}$$

$$(13) \quad \begin{cases} x = 5y \\ 3x + 2y = 17 \end{cases}$$

$$(14) \quad \begin{cases} 2x + 5y = 24 \\ 3y - 4x = 4 \end{cases}$$

$$(15) \quad \begin{cases} 9x + 13y = 89 \\ 13x + 9y = 109 \end{cases}$$

$$(16) \quad \frac{x-100}{5} + \frac{x-96}{9} + \frac{x-92}{13} = 3$$

## **2. Word Problem**

(17) The students took part in tree planting activities. A total of 12 boys and girls were sent to get the saplings. Each boy took 3 saplings, and each girl took 2 saplings; If the number of boys and girls is exchanged, two trees will be missing and cannot be retrieved. Find the number of boys and girls respectively?

(18) Four natural numbers. Add three of them together to get four sums, 22, 24, 27 and 20 respectively. Find the four numbers respectively?

(19) Given that the sum of the elder brother's age five years later and the younger brother's age three years ago is exactly 29 years old, and the younger brother's age now is four times the age difference between the two. How old is the elder brother this year?

(20) There are 20 donkeys in one team and 16 horses in the other. The total weight of the two team is 11000 kg. If the four donkeys of the first team and the four horses of the second team are exchanged, the weight of the two teams will be equal. How much more does each horse weigh than each donkey(in kg)?