

Solving Equations with Variables on Both Sides

① $4x + 12 = 7x$
 $-4x$ $\downarrow -4x$
 $12 = 3x$
 $\div 3$ $\downarrow \div 3$
 $\underline{\hspace{1cm}} = x$

② $5x + 6 = 7x$
 $-5x$ $\downarrow -5x$
 $6 = \underline{\hspace{1cm}}$
 $\div 2$ $\downarrow \div 2$
 $\underline{\hspace{1cm}} = x$

③ $7a = 4a + 15$
 $-4a$ $\downarrow -4a$
 $3a = \underline{\hspace{1cm}}$
 $\div 3$ $\downarrow \div 3$
 $a = \underline{\hspace{1cm}}$

④ $10x = 2x + 40$
 $-2x$ $\downarrow -2x$
 $\underline{\hspace{1cm}} = 40$
 $\div 10$ $\downarrow \div 10$
 $x = \underline{\hspace{1cm}}$

⑤ $3w + 14 = 5w$
 $-3w$ $\downarrow -3w$
 $\underline{\hspace{1cm}} = \underline{\hspace{1cm}}$
 $\underline{\hspace{1cm}} = w$

⑥ $6m = 4m + 22$
 $-4m$ $\downarrow -4m$
 $\underline{\hspace{1cm}} = \underline{\hspace{1cm}}$
 $m = \underline{\hspace{1cm}}$

⑦ $9a + 24 = a$
 $-a$ $\downarrow -a$
 $\underline{\hspace{1cm}} + 24 = 0$
 -24 $\downarrow -24$
 $\underline{\hspace{1cm}} = \underline{\hspace{1cm}}$
 $a = \underline{\hspace{1cm}}$

⑧ $5x + 12 = x$
 $-x$ $\downarrow -x$
 $\underline{\hspace{1cm}} + 12 = \underline{\hspace{1cm}}$
 -12 $\downarrow -12$
 $\underline{\hspace{1cm}} = \underline{\hspace{1cm}}$
 $x = \underline{\hspace{1cm}}$