

Name: _____

Date: _____

2-step backtracking: Answers

(1) $x \xrightarrow{+5} x+5 \xrightarrow{\div 7} \frac{(x+5)}{7}$
 $\frac{(x+5)}{7} \xleftarrow{\times 7} x+5 \xleftarrow{-5} x$

(2) $x \xrightarrow{\div 7} \frac{x}{7} \xrightarrow{+8} \frac{x}{7} + 8$
 $\frac{x}{7} + 8 \xleftarrow{-8} \frac{x}{7} \xleftarrow{\times 7} x$

(3) $x \xrightarrow{\times 10} 10x \xrightarrow{+7} 10x + 7$
 $10x + 7 \xleftarrow{-7} 10x \xleftarrow{\div 10} x$

(4) $x \xrightarrow{-6} x-6 \xrightarrow{\times 8} 8(x-6)$
 $8(x-6) \xleftarrow{\div 8} x-6 \xleftarrow{+6} x$

(5) $x \xrightarrow{\times 7} 7x \xrightarrow{+3} 7x + 3$
 $7x + 3 \xleftarrow{-3} 7x \xleftarrow{\div 7} x$

(6) $x \xrightarrow{-4} x-4 \xrightarrow{\times 9} 9(x-4)$
 $9(x-4) \xleftarrow{\div 9} x-4 \xleftarrow{+4} x$

(7) $x \xrightarrow{\div 9} \frac{x}{9} \xrightarrow{-7} \frac{x}{9} - 7$
 $\frac{x}{9} - 7 \xleftarrow{+7} \frac{x}{9} \xleftarrow{\times 9} x$

(8) $x \xrightarrow{\times 7} 7x \xrightarrow{+6} 7x + 6$
 $7x + 6 \xleftarrow{-6} 7x \xleftarrow{\div 7} x$

(9) $x \xrightarrow{\times 3} 3x \xrightarrow{+2} 3x + 2$
 $3x + 2 \xleftarrow{-2} 3x \xleftarrow{\div 3} x$

(10) $x \xrightarrow{\div 8} \frac{x}{8} \xrightarrow{-6} \frac{x}{8} - 6$
 $\frac{x}{8} - 6 \xleftarrow{+6} \frac{x}{8} \xleftarrow{\times 8} x$

(11) $x \xrightarrow{+3} x+3 \xrightarrow{\times 5} 5(x+3)$
 $5(x+3) \xleftarrow{\div 5} x+3 \xleftarrow{-3} x$

(12) $x \xrightarrow{\times 8} 8x \xrightarrow{+3} 8x + 3$
 $8x + 3 \xleftarrow{-3} 8x \xleftarrow{\div 8} x$

(13) $x \xrightarrow{\div 4} \frac{x}{4} \xrightarrow{+5} \frac{x}{4} + 5$
 $\frac{x}{4} + 5 \xleftarrow{-5} \frac{x}{4} \xleftarrow{\times 4} x$

(14) $x \xrightarrow{\div 6} \frac{x}{6} \xrightarrow{-4} \frac{x}{6} - 4$
 $\frac{x}{6} - 4 \xleftarrow{+4} \frac{x}{6} \xleftarrow{\times 6} x$

(15) $x \xrightarrow{-9} x-9 \xrightarrow{\times 7} 7(x-9)$
 $7(x-9) \xleftarrow{\div 7} x-9 \xleftarrow{+9} x$

(16) $\xrightarrow{\times 4}$ $\xrightarrow{+7}$
 $x \rightarrow 4x \rightarrow 4x + 7$
 $\xleftarrow{\div 4}$ $\xleftarrow{-7}$

(24) $\xrightarrow{+6}$ $\xrightarrow{\div 7}$
 $x \rightarrow x + 6 \rightarrow \frac{(x+6)}{7}$
 $\xleftarrow{-6}$ $\xleftarrow{\times 7}$

(17) $\xrightarrow{\times 2}$ $\xrightarrow{+6}$
 $x \rightarrow 2x \rightarrow 2x + 6$
 $\xleftarrow{\div 2}$ $\xleftarrow{-6}$

(25) $\xrightarrow{+8}$ $\xrightarrow{\div 5}$
 $x \rightarrow x + 8 \rightarrow \frac{(x+8)}{5}$
 $\xleftarrow{-8}$ $\xleftarrow{\times 5}$

(18) $\xrightarrow{\times 4}$ $\xrightarrow{+6}$
 $x \rightarrow 4x \rightarrow 4x + 6$
 $\xleftarrow{\div 4}$ $\xleftarrow{-6}$

(26) $\xrightarrow{\div 2}$ $\xrightarrow{-4}$
 $x \rightarrow \frac{x}{2} \rightarrow \frac{x}{2} - 4$
 $\xleftarrow{\times 2}$ $\xleftarrow{+4}$

(19) $\xrightarrow{\times 3}$ $\xrightarrow{+7}$
 $x \rightarrow 3x \rightarrow 3x + 7$
 $\xleftarrow{\div 3}$ $\xleftarrow{-7}$

(27) $\xrightarrow{\times 2}$ $\xrightarrow{-8}$
 $x \rightarrow 2x \rightarrow 2x - 8$
 $\xleftarrow{\div 2}$ $\xleftarrow{+8}$

(20) $\xrightarrow{+6}$ $\xrightarrow{\div 10}$
 $x \rightarrow x + 6 \rightarrow \frac{(x+6)}{10}$
 $\xleftarrow{-6}$ $\xleftarrow{\times 10}$

(28) $\xrightarrow{\times 6}$ $\xrightarrow{+2}$
 $x \rightarrow 6x \rightarrow 6x + 2$
 $\xleftarrow{\div 6}$ $\xleftarrow{-2}$

(21) $\xrightarrow{-1}$ $\xrightarrow{\div 6}$
 $x \rightarrow x - 1 \rightarrow \frac{(x-1)}{6}$
 $\xleftarrow{+1}$ $\xleftarrow{\times 6}$

(29) $\xrightarrow{-7}$ $\xrightarrow{\div 4}$
 $x \rightarrow x - 7 \rightarrow \frac{(x-7)}{4}$
 $\xleftarrow{+7}$ $\xleftarrow{\times 4}$

(22) $\xrightarrow{-2}$ $\xrightarrow{\div 8}$
 $x \rightarrow x - 2 \rightarrow \frac{(x-2)}{8}$
 $\xleftarrow{+2}$ $\xleftarrow{\times 8}$

(23) $\xrightarrow{\div 5}$ $\xrightarrow{-6}$
 $x \rightarrow \frac{x}{5} \rightarrow \frac{x}{5} - 6$
 $\xleftarrow{\times 5}$ $\xleftarrow{+6}$

(30) $\xrightarrow{+9}$ $\xrightarrow{\times 5}$
 $x \rightarrow x + 9 \rightarrow 5(x + 9)$
 $\xleftarrow{-9}$ $\xleftarrow{\div 5}$