

Name: _____

Date: _____

2-step backtracking: Answers

(1) $\begin{array}{ccc} & \xrightarrow{\div 4} & \xrightarrow{+10} \\ \boxed{x} & \boxed{\frac{x}{4}} & \boxed{\frac{x}{4} + 10} \\ & \xleftarrow{\times 4} & \xleftarrow{-10} \end{array}$

(2) $\begin{array}{ccc} & \xrightarrow{+2} & \xrightarrow{\div 5} \\ \boxed{x} & \boxed{x + 2} & \boxed{\frac{(x+2)}{5}} \\ & \xleftarrow{-2} & \xleftarrow{\times 5} \end{array}$

(3) $\begin{array}{ccc} & \xrightarrow{+8} & \xrightarrow{\times 5} \\ \boxed{x} & \boxed{x + 8} & \boxed{5(x + 8)} \\ & \xleftarrow{-8} & \xleftarrow{\div 5} \end{array}$

(4) $\begin{array}{ccc} & \xrightarrow{\times 6} & \xrightarrow{-10} \\ \boxed{x} & \boxed{6x} & \boxed{6x - 10} \\ & \xleftarrow{\div 6} & \xleftarrow{+10} \end{array}$

(5) $\begin{array}{ccc} & \xrightarrow{-8} & \xrightarrow{\div 5} \\ \boxed{x} & \boxed{x - 8} & \boxed{\frac{(x-8)}{5}} \\ & \xleftarrow{+8} & \xleftarrow{\times 5} \end{array}$

(6) $\begin{array}{ccc} & \xrightarrow{+2} & \xrightarrow{\times 8} \\ \boxed{x} & \boxed{x + 2} & \boxed{8(x + 2)} \\ & \xleftarrow{-2} & \xleftarrow{\div 8} \end{array}$

(7) $\begin{array}{ccc} & \xrightarrow{-6} & \xrightarrow{\times 6} \\ \boxed{x} & \boxed{x - 6} & \boxed{6(x - 6)} \\ & \xleftarrow{+6} & \xleftarrow{\div 6} \end{array}$

(8) $\begin{array}{ccc} & \xrightarrow{+5} & \xrightarrow{\div 1} \\ \boxed{x} & \boxed{x + 5} & \boxed{\frac{(x+5)}{1}} \\ & \xleftarrow{-5} & \xleftarrow{\times 1} \end{array}$

(9) $\begin{array}{ccc} & \xrightarrow{-4} & \xrightarrow{\times 7} \\ \boxed{x} & \boxed{x - 4} & \boxed{7(x - 4)} \\ & \xleftarrow{+4} & \xleftarrow{\div 7} \end{array}$

(10) $\begin{array}{ccc} & \xrightarrow{+10} & \xrightarrow{\times 6} \\ \boxed{x} & \boxed{x + 10} & \boxed{6(x + 10)} \\ & \xleftarrow{-10} & \xleftarrow{\div 6} \end{array}$

(11) $\begin{array}{ccc} & \xrightarrow{\times 4} & \xrightarrow{-9} \\ \boxed{x} & \boxed{4x} & \boxed{4x - 9} \\ & \xleftarrow{\div 4} & \xleftarrow{+9} \end{array}$

(12) $\begin{array}{ccc} & \xrightarrow{\times 10} & \xrightarrow{+7} \\ \boxed{x} & \boxed{10x} & \boxed{10x + 7} \\ & \xleftarrow{\div 10} & \xleftarrow{-7} \end{array}$

(13) $\begin{array}{ccc} & \xrightarrow{-4} & \xrightarrow{\times 7} \\ \boxed{x} & \boxed{x - 4} & \boxed{7(x - 4)} \\ & \xleftarrow{+4} & \xleftarrow{\div 7} \end{array}$

(14) $\begin{array}{ccc} & \xrightarrow{\times 6} & \xrightarrow{-7} \\ \boxed{x} & \boxed{6x} & \boxed{6x - 7} \\ & \xleftarrow{\div 6} & \xleftarrow{+7} \end{array}$

(15) $\begin{array}{ccc} & \xrightarrow{\div 4} & \xrightarrow{-6} \\ \boxed{x} & \boxed{\frac{x}{4}} & \boxed{\frac{x}{4} - 6} \\ & \xleftarrow{\times 4} & \xleftarrow{+6} \end{array}$

(16) $x \xrightarrow{+6} x+6 \xrightarrow{\div 2} \frac{(x+6)}{2}$
 $\xleftarrow{-6} \xleftarrow{\times 2}$

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

(17) $x \xrightarrow{-10} x-10 \xrightarrow{\div 2} \frac{(x-10)}{2}$
 $\xleftarrow{+10} \xleftarrow{\times 2}$

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

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

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

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

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

(20) $x \xrightarrow{\times 8} 8x \xrightarrow{+9} 8x+9$
 $\xleftarrow{\div 8} \xleftarrow{-9}$

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

(21) $x \xrightarrow{\times 3} 3x \xrightarrow{+4} 3x+4$
 $\xleftarrow{\div 3} \xleftarrow{-4}$

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

(29) $x \xrightarrow{\div 2} \frac{x}{2} \xrightarrow{+10} \frac{x}{2} + 10$
 $\xleftarrow{\times 2} \xleftarrow{-10}$

(23) $x \xrightarrow{+5} x+5 \xrightarrow{\div 9} \frac{(x+5)}{9}$
 $\xleftarrow{-5} \xleftarrow{\times 9}$

(30) $x \xrightarrow{+2} x+2 \xrightarrow{\times 5} 5(x+2)$
 $\xleftarrow{-2} \xleftarrow{\div 5}$