

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## 2-step backtracking: Answers

(1)

$x$	$\xrightarrow{+10}$	$x + 10$	$\xrightarrow{\div 10}$	$\frac{(x+10)}{10}$
=		=		=
80		90		9
	$\xleftarrow{-10}$		$\xleftarrow{\times 10}$	

(6)

$x$	$\xrightarrow{+6}$	$x + 6$	$\xrightarrow{\times 10}$	$10(x + 6)$
=		=		=
4		10		100
	$\xleftarrow{-6}$		$\xleftarrow{\div 10}$	

(2)

$x$	$\xrightarrow{\div 6}$	$\frac{x}{6}$	$\xrightarrow{+10}$	$\frac{x}{6} + 10$
=		=		=
30		5		15
	$\xleftarrow{\times 6}$		$\xleftarrow{-10}$	

(7)

$x$	$\xrightarrow{\times 3}$	$3x$	$\xrightarrow{+8}$	$3x + 8$
=		=		=
3		9		17
	$\xleftarrow{\div 3}$		$\xleftarrow{-8}$	

(3)

$x$	$\xrightarrow{+5}$	$x + 5$	$\xrightarrow{\times 5}$	$5(x + 5)$
=		=		=
3		8		40
	$\xleftarrow{-5}$		$\xleftarrow{\div 5}$	

(8)

$x$	$\xrightarrow{-5}$	$x - 5$	$\xrightarrow{\times 7}$	$7(x - 5)$
=		=		=
12		7		49
	$\xleftarrow{+5}$		$\xleftarrow{\div 7}$	

(4)

$x$	$\xrightarrow{\div 9}$	$\frac{x}{9}$	$\xrightarrow{-2}$	$\frac{x}{9} - 2$
=		=		=
108		12		10
	$\xleftarrow{\times 9}$		$\xleftarrow{+2}$	

(9)

$x$	$\xrightarrow{\div 10}$	$\frac{x}{10}$	$\xrightarrow{-6}$	$\frac{x}{10} - 6$
=		=		=
150		15		9
	$\xleftarrow{\times 10}$		$\xleftarrow{+6}$	

(5)

$x$	$\xrightarrow{\div 3}$	$\frac{x}{3}$	$\xrightarrow{-8}$	$\frac{x}{3} - 8$
=		=		=
39		13		5
	$\xleftarrow{\times 3}$		$\xleftarrow{+8}$	

(10)

$x$	$\xrightarrow{+4}$	$x + 4$	$\xrightarrow{\times 10}$	$10(x + 4)$
=		=		=
2		6		60
	$\xleftarrow{-4}$		$\xleftarrow{\div 10}$	

(11)

$x$	$x - 4$	$\frac{(x-4)}{10}$
=	=	=
24	20	2

$\xrightarrow{-4}$        $\xrightarrow{\div 10}$

$\xleftarrow{+4}$        $\xleftarrow{\times 10}$

(16)

$x$	$x + 1$	$6(x + 1)$
=	=	=
4	5	30

$\xrightarrow{+1}$        $\xrightarrow{\times 6}$

$\xleftarrow{-1}$        $\xleftarrow{\div 6}$

(12)

$x$	$6x$	$6x + 5$
=	=	=
2	12	17

$\xrightarrow{\times 6}$        $\xrightarrow{+5}$

$\xleftarrow{\div 6}$        $\xleftarrow{-5}$

(17)

$x$	$9x$	$9x - 2$
=	=	=
2	18	16

$\xrightarrow{\times 9}$        $\xrightarrow{-2}$

$\xleftarrow{\div 9}$        $\xleftarrow{+2}$

(13)

$x$	$x - 4$	$\frac{(x-4)}{8}$
=	=	=
12	8	1

$\xrightarrow{-4}$        $\xrightarrow{\div 8}$

$\xleftarrow{+4}$        $\xleftarrow{\times 8}$

(18)

$x$	$x - 5$	$6(x - 5)$
=	=	=
13	8	48

$\xrightarrow{-5}$        $\xrightarrow{\times 6}$

$\xleftarrow{+5}$        $\xleftarrow{\div 6}$

(14)

$x$	$5x$	$5x - 5$
=	=	=
4	20	15

$\xrightarrow{\times 5}$        $\xrightarrow{-5}$

$\xleftarrow{\div 5}$        $\xleftarrow{+5}$

(19)

$x$	$5x$	$5x - 2$
=	=	=
6	30	28

$\xrightarrow{\times 5}$        $\xrightarrow{-2}$

$\xleftarrow{\div 5}$        $\xleftarrow{+2}$

(15)

$x$	$x - 7$	$\frac{(x-7)}{2}$
=	=	=
9	2	1

$\xrightarrow{-7}$        $\xrightarrow{\div 2}$

$\xleftarrow{+7}$        $\xleftarrow{\times 2}$

(20)

$x$	$x + 5$	$2(x + 5)$
=	=	=
6	11	22

$\xrightarrow{+5}$        $\xrightarrow{\times 2}$

$\xleftarrow{-5}$        $\xleftarrow{\div 2}$