Name: _____ **Date:** _____

Inverse operations: Questions

(1)
$$\frac{x-3}{4} = 1$$
$$\frac{x-3}{4} \times \ldots = 1 \times \ldots$$
$$x - 3 = \ldots$$
$$x - 3 + \ldots = \ldots + \ldots$$
$$x = \ldots$$

(2)
$$\frac{x+1}{5} = 1$$
$$\frac{x+1}{5} \times \ldots = 1 \times \ldots$$
$$x + 1 = \ldots$$
$$x + 1 - \ldots = \ldots - \ldots$$
$$x = \ldots$$

(3)
$$\frac{x}{9} - 7 = -2$$
$$\frac{x}{9} - 7 + \ldots = -2 + \ldots$$
$$\frac{x}{9} = \ldots$$
$$\frac{x}{9} \times \ldots = \ldots \times \ldots$$
$$x = \ldots$$

(4)
$$\frac{x}{6} - 7 = -5$$
$$\frac{x}{6} - 7 + \ldots = -5 + \ldots$$
$$\frac{x}{6} = \ldots$$
$$\frac{x}{6} \times \ldots = \ldots \times \ldots$$
$$x = \ldots$$

(5)
$$3(x-6) = -12$$
$$\frac{3(x-6)}{\ldots} = \frac{-12}{\ldots}$$
$$x - 6 = \ldots$$
$$x - 6 + \ldots = \ldots + \ldots$$
$$x = \ldots$$

(6)
$$9x + 6 = 60$$
$$9x + 6 - \ldots = 60 - \ldots$$
$$9x = \ldots$$
$$\frac{9x}{\ldots} = \frac{\ldots}{\ldots}$$
$$x = \ldots$$

(7)
$$6x + 1 = 13$$
$$6x + 1 - \ldots = 13 - \ldots$$
$$6x = \ldots$$
$$\frac{6x}{\ldots} = \frac{\ldots}{\ldots}$$
$$x = \ldots$$

(8)
$$8(x+7) = 104$$
$$\frac{8(x+7)}{\ldots} = \frac{104}{\ldots}$$
$$x + 7 = \ldots$$
$$x + 7 - \ldots = \ldots - \ldots$$
$$x = \ldots$$

(9)
$$\frac{x}{8} - 3 = 0$$
$$\frac{x}{8} - 3 + \ldots = 0 + \ldots$$
$$\frac{x}{8} = \ldots$$
$$\frac{x}{8} \times \ldots = \ldots \times \ldots$$
$$x = \ldots$$

(10)
$$\frac{x-3}{4} = 4$$
$$\frac{x-3}{4} \times \ldots = 4 \times \ldots$$
$$x - 3 = \ldots$$
$$x - 3 + \ldots = \ldots + \ldots$$
$$x = \ldots$$

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Inverse operations: Answers

(1)
$$\frac{x-3}{4} = 1$$
$$\frac{x-3}{4} \times 4 = 1 \times 4$$
$$x - 3 = 4$$
$$x - 3 + 3 = 4 + 3$$
$$x = 7$$

(2)
$$\frac{x+1}{5} = 1$$
$$\frac{x+1}{5} \times 5 = 1 \times 5$$
$$x + 1 = 5$$
$$x + 1 - 1 = 5 - 1$$
$$x = 4$$

(3)
$$\frac{x}{9} - 7 = -2$$
$$\frac{x}{9} - 7 + 7 = -2 + 7$$
$$\frac{x}{9} = 5$$
$$\frac{x}{9} \times 9 = 5 \times 9$$
$$x = 45$$

(4)
$$\frac{x}{6} - 7 = -5$$
$$\frac{x}{6} - 7 + 7 = -5 + 7$$
$$\frac{x}{6} = 2$$
$$\frac{x}{6} \times 6 = 2 \times 6$$
$$x = 12$$

(5)
$$3(x-6) = -12$$
$$\frac{3(x-6)}{3} = \frac{-12}{3}$$
$$x - 6 = -4$$
$$x - 6 + 6 = -4 + 6$$
$$x = 2$$

(6)
$$9x + 6 = 60$$
$$9x + 6 - 6 = 60 - 6$$
$$9x = 54$$
$$\frac{9x}{9} = \frac{54}{9}$$
$$x = 6$$

(7)
$$6x + 1 = 13$$
$$6x + 1 - 1 = 13 - 1$$
$$6x = 12$$
$$\frac{6x}{6} = \frac{12}{6}$$
$$x = 2$$

(8)
$$8(x+7) = 104$$
$$\frac{8(x+7)}{8} = \frac{104}{8}$$
$$x + 7 = 13$$
$$x + 7 - 7 = 13 - 7$$
$$x = 6$$

(9)
$$\frac{x}{8} - 3 = 0$$
$$\frac{x}{8} - 3 + 3 = 0 + 3$$
$$\frac{x}{8} = 3$$
$$\frac{x}{8} \times 8 = 3 \times 8$$
$$x = 24$$

(10)
$$\frac{x-3}{4} = 4$$
$$\frac{x-3}{4} \times 4 = 4 \times 4$$
$$x - 3 = 16$$
$$x - 3 + 3 = 16 + 3$$
$$x = 19$$