

2.3

ANSWER KEY

① conditional eq.

④ T

② LCD

⑤ F

③ 100

⑥ F

$$\textcircled{9} \frac{2k-1}{4} = 2 \quad (4) \quad \textcircled{1}$$

$$2k-1 = 8$$

$$2k = 9$$

$$k = \frac{9}{2} \quad \textcircled{1}$$

$$\textcircled{11} \frac{3x+2}{4} = \frac{x}{2} \quad (4)$$

$$3x+2 = 2x$$

$$2 = -x$$

$$-2 = x$$

$$\text{ck} \frac{2(\frac{9}{2})-1}{4} = 2 \quad \textcircled{1}$$

$$\frac{9-1}{4} = 2$$

$$\text{ck} \frac{3(-2)+2}{4} = \frac{-2}{2}$$

$$\frac{-4}{4} = \frac{-2}{2} = -1 \quad \checkmark$$

$$\textcircled{45} 4z - 3(z+1) = 2(z-3) - z$$

$$4z - 3z - 3 = 2z - 6 - z$$

$$z - 3 = z - 6$$

Contradiction

$$\textcircled{47} 6q - (q-3) = 2q + 3(q+1)$$

$$6q - q + 3 = 2q + 3q + 3$$

$$5q + 3 = 5q + 3 \quad \textcircled{1}$$

Identity

$$\textcircled{49} 9a - 5(a+1) = 2(a-3)$$

$$9a - 5a - 5 = 2a - 6$$

$$4a - 5 = 2a - 6$$

$$2a = -1$$

$$a = -\frac{1}{2}$$

Conditional

$$\textcircled{65} \left[\frac{1}{2}x + 2 = \frac{4x+1}{4} \right] 4$$

$$2x + 8 = 4x + 1$$

$$7 = 2x$$

$$x = \frac{7}{2}$$

$$\textcircled{70} [0.2a = -6] 10$$

$$2a = -60$$

$$a = -30$$

$$\textcircled{68} 1.6z - 4 = 2(z-1) - 0.4z$$

$$1.6z - 4 = 2z - 2 - 0.4z$$

$$1.6z - 4 = 1.6z - 2$$

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Contradiction