

$$12x+11-1x+3 \neq 0$$

$$12x+11 \neq 1x+3 \quad (1)$$

$$12x+11 \neq 1x+3 \quad (2)$$

$$12x+11-1x+3 \neq 0 \quad (3)$$

$$12x+11-1x+3 \neq 0 \quad (4)$$

دستگاه معادلات

$$Df: (-\infty, -\frac{1}{12}] \cup [1, +\infty)$$

$$الف - y = \sqrt{1-x|x|}$$

$$1-x|x| \geq 0$$

$$x|x| \leq 1$$

$$\textcircled{1} \checkmark$$

$$\textcircled{2} \checkmark$$

$$(-\infty, 1] \textcircled{3} \checkmark$$

$$[0, +\infty) \textcircled{4} \checkmark$$

$$Df: (-\infty, 1]$$

$$ب - y = \frac{1}{\sqrt{1-x-|x|}}$$

$$I) \sqrt{1-x-|x|} \neq 0$$

$$II) 1-x-|x| \geq 0$$

$$\sqrt{1-x-|x|} \neq 0$$

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$$x-|x| \neq 0$$

$$Df: [1, 1] - \{1\} = \emptyset$$

$$الف - y = \frac{\sin^2 x - 1}{\cos x}$$

$$\cos x \neq 0$$

$$x \neq 2k\pi + \frac{\pi}{2}, 2k\pi + \frac{3\pi}{2}$$

$$Df: \mathbb{R} - \{2k\pi + \frac{\pi}{2}\}$$



$$ب - y = \frac{\cos x}{1 - \cos x}$$

$$1 - \cos x \neq 0$$

$$1 - \cos x \neq 0$$

$$\cos x \neq 1$$

$$x \neq 2k\pi$$

$$Df: \mathbb{R} - \{2k\pi\}$$



$$الف - y = \frac{x+3}{12x+11-1x+3}$$

$$12x+11-1x+3 \neq 0$$

$$12x+11=0 \Rightarrow x=-\frac{11}{12}$$

$$x+3=0 \Rightarrow x=-3$$

$$Df: \mathbb{R} - \{-\frac{11}{12}, -3\}$$

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$$ب - y = \sqrt{12x+11-1x+3}$$

$$12x+11-1x+3 \geq 0$$

$$12x+11 \geq 1x+3 \quad (1)$$

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$$12x+11 \geq 1x+3 \quad (4)$$

$$12x+11 \geq 1x+3 \quad (5)$$

$$12x+11 \geq 1x+3 \quad (6)$$

$$12x+11 \geq 1x+3 \quad (7)$$

$$12x+11 \geq 1x+3 \quad (8)$$

$$12x+11 \geq 1x+3 \quad (9)$$

$$12x+11 \geq 1x+3 \quad (10)$$

$$12x+11 \geq 1x+3 \quad (11)$$

$$12x+11 \geq 1x+3 \quad (12)$$

$$12x+11 \geq 1x+3 \quad (13)$$

$$12x+11 \geq 1x+3 \quad (14)$$

$$12x+11 \geq 1x+3 \quad (15)$$

$$12x+11 \geq 1x+3 \quad (16)$$

$$12x+11 \geq 1x+3 \quad (17)$$

$$12x+11 \geq 1x+3 \quad (18)$$

$$12x+11 \geq 1x+3 \quad (19)$$

$$12x+11 \geq 1x+3 \quad (20)$$

$$12x+11 \geq 1x+3 \quad (21)$$

$$12x+11 \geq 1x+3 \quad (22)$$

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$$12x+11 \geq 1x+3 \quad (26)$$

$$12x+11 \geq 1x+3 \quad (27)$$

$$12x+11 \geq 1x+3 \quad (28)$$

$$12x+11 \geq 1x+3 \quad (29)$$

$$12x+11 \geq 1x+3 \quad (30)$$

$$12x+11 \geq 1x+3 \quad (31)$$

$$12x+11 \geq 1x+3 \quad (32)$$

$$12x+11 \geq 1x+3 \quad (33)$$

$$12x+11 \geq 1x+3 \quad (34)$$

$$f(x) = \sqrt{\log_{10} \log_{10} (x-1)}$$

$$I) x-1 > 0 \Rightarrow x > 1$$

$$II) \log_{10} (x-1) > 0$$

$$x-1 > 1$$

$$x > 2$$

$$III) \log_{10} \log_{10} (x-1) \geq 0 \Rightarrow \log_{10} (x-1) \geq 1 \Rightarrow x-1 \geq 10 \Rightarrow x \geq 11$$



$$Df: [11, +\infty)$$

$$الف - y = \log(1 - \cos x)$$

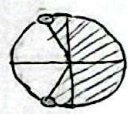
$$1 - \cos x > 0$$

$$1 - \cos x > 0$$

$$\cos x < 1$$

$$x \neq 2k\pi$$

$$Df: (2k\pi - \frac{\pi}{2}, 2k\pi + \frac{\pi}{2})$$



$$ب - y = \sqrt{\log \frac{x-1}{x+1}}$$

$$I) \frac{x-1}{x+1} > 0 \Rightarrow x > -1$$

$$II) \log \frac{x-1}{x+1} \geq 0$$

$$\frac{x-1}{x+1} \geq 1$$

$$\frac{x-1}{x+1} - 1 \geq 0$$

$$x-1-x-1 \geq 0 \Rightarrow -2 \geq 0 \Rightarrow \text{No solution}$$

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