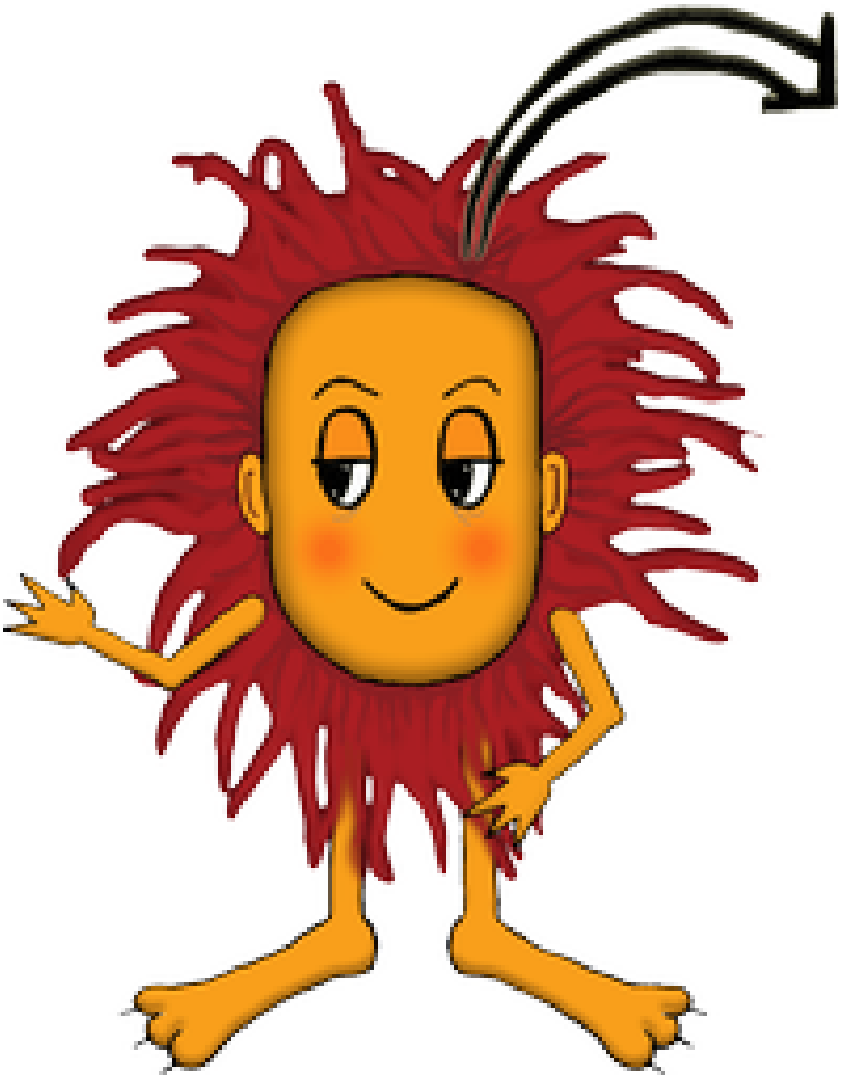
Velika logična pošast



Enačbe $|ax+b|+|cx+d|=e$

Reši enačbo oblike
$|ax+b|+|cx+d|=e$.

1.

$$|x-1|+|3x-2|=1$$

2.

$$|1-2x|+|2x-3|=4$$

3.

$$|5x-3|+|5x-2|=1$$

4.

$$|3-2x|+|x-1|=3$$

5.

$$|-2x-1|+|4x+3|=1$$

6.

$$|3-5x|+2|x|=1$$

7.

$$|2x+2|+|4x-3|=4$$

8.

$$|3x+1|+|4x+3|=7$$

9.

$$|-3x-1|+|x-2|=3$$

10.

$$|1-4x|+|4x+3|=5$$

11.

$$|2x-3|+|2x+3|=1$$

12.

$$|3-x|+3|x|=2$$

13.

$$|-4x-3|+|2-3x|=4$$

14.

$$|-x-1|+|4x+3|=1$$

15.

$$|-4x-3|+|-3x-3|=5$$

16.

$$|2-2x|+|4x+3|=7$$

17.

$$|2x+1|+|4x+1|=7$$

18.

$$|-3x-3|+5|x|=7$$

19.

$$|-x-1|+|x|=3$$

20.

$$|-3x-3|+|2x+2|=3$$

21.

$$|3-4x|+|2x-3|=6$$

22.

$$5|x|+|4x-1|=2$$

23.

$$|-4x-1|+|1-x|=6$$

24.

$$|1-4x|+|4x+3|=5$$

25.

$$6|x|=1$$

26.

$$|-4x-2|+|5x+2|=7$$

27.

$$|3-3x|+|3-2x|=1$$

28.

$$|2-5x|+4|x|=7$$

29.

$$|-x-3|+|3x+2|=1$$

30.

$$|1-4x|+|-x-3|=3$$

31.

$$|-4x-3|+|-3x-1|=3$$

32.

$$|-5x-2|+|1-4x|=4$$

33.

$$2|-3x-1|=5$$

34.

$$|1-5x|+|4x+2|=4$$

35.

$$|3x+1|+|3x+2|=3$$

36.

$$|-4x-1|+|2-4x|=5$$

37.

$$|-3x-2|+4|x|=3$$

38.

$$|-5x-2|+|1-5x|=2$$

39.

$$|4x-2|+|5x-1|=5$$

40.

$$|-x-1|+|x+2|=1$$

41.

$$|-x-2|+|2x+3|=1$$

42.

$$|3-5x|+|3x-1|=7$$

43.

$$5|x|+|4x+2|=6$$

44.

$$|3x-2|+|5x+1|=1$$

45.

$$|-x-1|+|x-2|=4$$

46.

$$|-4x-1|+|2-2x|=5$$

47.

$$|-2x-2|+|3x-2|=2$$

48.

$$|2-4x|+|-x-1|=2$$

49.

$$|3-4x|+|x-2|=4$$

50.

$$|3-x|+|2x-2|=7$$

Rešitve:

1.

$$x=\frac{1}{2}\vee x=1$$

2.

$$x=0\vee x=2$$

3.

$\frac{2}{5} \leq x \leq \frac{3}{5}$

4.

$x = \frac{1}{3} \vee x = \frac{7}{3}$

5.

$x = -\frac{5}{6} \vee x = -\frac{1}{2}$

6.

protislovna enačba

7.

$x = \frac{1}{2} \vee x = \frac{5}{6}$

8.

$x = -\frac{11}{7} \vee x = \frac{3}{7}$

9.

$x = -\frac{1}{2} \vee x = 0$

10.

$x = -\frac{7}{8} \vee x = \frac{3}{8}$

11.

protislovna enačba

12.

protislovna enačba

13.

protislovna enačba

14.

$x = -1 \vee x = -\frac{3}{5}$

15.

$x = -\frac{11}{7} \vee x = -\frac{1}{7}$

16.

$x = -\frac{4}{3} \vee x = 1$

17.

$x = -\frac{3}{2} \vee x = \frac{5}{6}$

18.

$x = -\frac{5}{4} \vee x = \frac{1}{2}$

19.

$x = -2 \vee x = 1$

20.

$x = -\frac{8}{5} \vee x = -\frac{2}{5}$

21.

$x = 0 \vee x = 2$

22.

$x = -\frac{1}{9} \vee x = \frac{1}{3}$

23.

$x = -\frac{6}{5} \vee x = \frac{6}{5}$

24.

$x = -\frac{7}{8} \vee x = \frac{3}{8}$

25.

$x = -\frac{1}{6} \vee x = \frac{1}{6}$

26.

$x = -\frac{11}{9} \vee x = \frac{1}{3}$

27.

$x = 1$

28.

$x = -\frac{5}{9} \vee x = 1$

29.

protislovna enačba

30.

protislovna enačba

31.

$x = -1 \vee x = -\frac{1}{7}$

32.

$x = -\frac{5}{9} \vee x = \frac{1}{3}$

33.

$x = -\frac{7}{6} \vee x = \frac{1}{2}$

34.

$x = -\frac{5}{9} \vee x = \frac{1}{3}$

35.

$x = -1 \vee x = 0$

36.

$x = -\frac{1}{2} \vee x = \frac{3}{4}$

37.

$x = -\frac{5}{7} \vee x = \frac{1}{7}$

38.

protislovna enačba

39.

$x = -\frac{2}{9} \vee x = \frac{8}{9}$

40.

$-2 \leq x \leq -1$

41.

$x = -2 \vee x = -\frac{4}{3}$

42.

$x = -\frac{3}{8} \vee x = \frac{11}{8}$

43.

$x = -\frac{8}{9} \vee x = \frac{4}{9}$

44.

protislovna enačba

45.

$x = -\frac{3}{2} \vee x = \frac{5}{2}$

46.

$x = -\frac{2}{3} \vee x = 1$

47.

protislovna enačba

48.

$x = \frac{1}{3} \vee x = \frac{3}{5}$

49.

$x = \frac{1}{5} \vee x = \frac{5}{3}$

50.

$x = -\frac{2}{3} \vee x = 4$

Referenca:

Izidor Hafner Inequalities and Equations with Absolute Values
http://demonstrations.wolfram.com/InequalitiesAndEquationsWithAbsoluteValues/Wolfram Demonstrations Project
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