

Math Document Template

C ANISH

Abstract—This is a document explaining a question about the concept of inequalities.

codes/dist_btw_pts.py

Download all python codes from

```
svn co https://github.com/chakki1234/summer
-2020/trunk/linearalg/codes
```

and latex-tikz codes from

```
svn co https://github.com/chakki1234/summer
-2020/trunk/linearalg/figs
```

1 PROBLEM

Solve $7x + 3 < 5x + 9$. Show the graph of the solutions on number line.

2 SOLUTION

Solution:

$$7x + 3 < 5x + 9 \quad (2.0.1)$$

$$2x - 6 < 0 \quad (2.0.2)$$

$$x < 3 \quad (2.0.3)$$

$$\therefore x \in \{3, -\infty\} \quad (2.0.4)$$

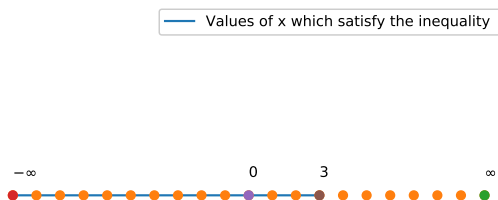


Fig. 0: Values of x satisfying the inequality in the number line generated using python

The following Python code generates Fig. 0