> ⓘ Info
>
> This note, that [was found here](), as a part of [a collection]()
> is written (completely with human hands) by [Rupadarshi Ray](),
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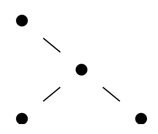
"T"-shaped graph

#wiki/graph/tree



> The "T"-shaped graph equipped with the length metric does not admit any isometric embedding into $\mathbb{R}^n$ for any n.

Consider an isometric embedding of any 3 vertex path.

- Because the distances
-

```
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- ({x2}, {y2});","id":"elem_ksowz7w"},
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- ({x2}, {y2});","id":"elem_4m0le9q"},
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width=\"2\"/></svg>","tikzCommand":"\\draw[line width=0.8pt] ({x}, {y}) -
- ({x2}, {y2});","id":"elem_pw8r8f1"},
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cy=\"20\" r=\"12\" fill=\"none\" stroke=\"currentColor\" stroke-
width=\"2\" /></svg>","tikzCommand":"\\draw ({x}, {y}) circle
(12pt);","id":"elem_fk6ti5e","radius":12}],"pictureOptions":""}]

  \draw[line width=3.8pt] (2.00, -2.00) -- (1.00, -1.00);
  \draw[line width=3.8pt] (2.00, 1.00) -- (1.00, -1.00);
  \draw[line width=3.8pt] (1.00, -1.00) -- (4.00, 0.00);
  <!-- \draw (1.00, -1.00) circle (12pt); -->
\end{tikzpicture}
```

Current note has 0 direct children and 0 total descendants.

- [stretchy]()
    - [T]()

And it has 62 siblings.

- [stretchy]()
    - [Trefoil 3_1 knot]()
    - [The only compact connected Lie group that can act faithfully on a torus is itself]()
    - [Hecke algebras]()
    - B^n
    - $\mathrm{BS}(1, 2)$
    - $(\mathbb{C}, +, \times)$
    - $D^* := D \setminus \{0\}$
    - [Cantor set]()
    - [Configuration space of N rigid points in $\mathbb{R}^3$]()
    - [Free groups]()
    - $GL(2)(\mathbb{Z}) \curvearrowright T^2$
    - H_2^3
    - $[a, b]$
    - [Figure 8 knot]()
    - [Lamplighter group on $\mathbb{Z}_2$]()
    - $\beta\mathbb{N}$
    - $\#_2\mathbb{R}P^2$

- $\prod_{i \in \mathbb{N}} \{1, \ldots, n_i\}$
- $\mathbb{R}P^n$
- $(\mathbb{Q}, +, \times, <)$
- $\mathbb{Q}_{\hat{p}}$
- $\overline{\mathbb{Q}}$
- $\mathbb{Q}_{\mathrm{constr}}$
- $\mathbb{Q}(\xi_n)$
- $\mathcal{O}_{\overline{\mathbb{Q}}}$
- $(\mathbb{R}, +, \times, <, \sup)$
- Homeomorphism of $\mathbb{R}^2$ that sends $\mathbb{N}$ to a countable closed discrete subset
- $\mathbb{R}^2 \times S^1$
- $\mathbb{R}^n$
- $\mathbb{R} \times S^1$
- $\mathbb{R} \times S^2$
- S^1
- $S^1 \wedge S^1$
- $S^1 \times S^n$
- S^2 and $\mathbb{C}\boldsymbol{P}^1$
- Mapping torus of the antipodal map of S^2
- S^3
- S^n
- I-bundle
- Symmetric group
- $\mathbb{T}$
- T^2
- T^2_g
- $T^2_{0,0,3}$
- $\mathbb{R}^2 \setminus \{0\}$
- Three $T^2_{1,0,1}$ glued at their boundaries
- $T^2_{1,1,0}$
- T^2_2
- $T^2_g \times [0,1]$
- $\#_{\mathbb{N}} T^2$
- Thompson's group
- T^n
- 3-valent tree
- 4-valent tree
- $[0,1]^{\mathbb{N}}$ with product topology
- Whitehead manifolds
- $\mathbb{Z}$
- $\mathbb{Z}[\sqrt{m}]$
- $\mathbb{Z}[X]$
- $\mathbb{Z}^{\mathbb{N}}$
- $\mathbb{Z}[i]$
- $\mathbb{Z}[i\sqrt{5}]$