

Multivariable Calculus Cartesian Coordinates in 3d space

Lesson 352 | Math Enrichment | Three-dimensional coordinates

https://www.youtube.com/watch?v=_BrByuWR9Pw

Original practice aligned to the saved video title.

Name: _____ Date: _____ Show your reasoning.

01

For $A=(2,12,3)$ and $B=(7,22,13)$, find the distance and midpoint in 3D.

02

For $A=(-8,11,12)$ and $B=(-2,23,24)$, find the distance and midpoint in 3D.

03

For $A=(8,7,12)$ and $B=(14,19,24)$, find the distance and midpoint in 3D.

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04

For $A=(2,11,7)$ and $B=(7,21,17)$, find the distance and midpoint in 3D.

05

For $A=(-2,10,14)$ and $B=(0,14,18)$, find the distance and midpoint in 3D.

06

For $A=(9,13,14)$ and $B=(13,21,22)$, find the distance and midpoint in 3D.

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01

For $A=(2,12,3)$ and $B=(7,22,13)$, find the distance and midpoint in 3D.

Distance $\sqrt{(25+100+100)}=15$. Average each coordinate: $(9/2,17,8)$.

02

For $A=(-8,11,12)$ and $B=(-2,23,24)$, find the distance and midpoint in 3D.

Distance $\sqrt{(36+144+144)}=18$. Average each coordinate: $(-5,17,18)$.

03

For $A=(8,7,12)$ and $B=(14,19,24)$, find the distance and midpoint in 3D.

Distance $\sqrt{(36+144+144)}=18$. Average each coordinate: $(11,13,18)$.

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04

For $A=(2,11,7)$ and $B=(7,21,17)$, find the distance and midpoint in 3D.

Distance $\sqrt{(25+100+100)}=15$. Average each coordinate: $(9/2,16,12)$.

05

For $A=(-2,10,14)$ and $B=(0,14,18)$, find the distance and midpoint in 3D.

Distance $\sqrt{(4+16+16)}=6$. Average each coordinate: $(-1,12,16)$.

06

For $A=(9,13,14)$ and $B=(13,21,22)$, find the distance and midpoint in 3D.

Distance $\sqrt{(16+64+64)}=12$. Average each coordinate: $(11,17,18)$.