

Pre Calculus 7.2 Sum and Difference Identities

Lesson 195 | Precalculus | Sum and difference identities

https://www.youtube.com/watch?v=_u56l9y9hbk

Original practice aligned to the saved video title.

Name: _____ Date: _____ Show your reasoning.

01

Expand $\sin(9x+13x)$ with the sum identity, then evaluate at $x=\pi/132$.

02

Expand $\sin(8x+13x)$ with the sum identity, then evaluate at $x=\pi/126$.

03

Expand $\sin(11x+8x)$ with the sum identity, then evaluate at $x=\pi/114$.

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04

Expand $\sin(8x+5x)$ with the sum identity, then evaluate at $x=\pi/78$.

05

Expand $\sin(5x+9x)$ with the sum identity, then evaluate at $x=\pi/84$.

06

Expand $\sin(12x+13x)$ with the sum identity, then evaluate at $x=\pi/150$.

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01

Expand $\sin(9x+13x)$ with the sum identity, then evaluate at $x=\pi/132$.

$\sin(9x)\cos(13x)+\cos(9x)\sin(13x)$. At the given x , $(9+13)x=\pi/6$, so the value is $1/2$.

02

Expand $\sin(8x+13x)$ with the sum identity, then evaluate at $x=\pi/126$.

$\sin(8x)\cos(13x)+\cos(8x)\sin(13x)$. At the given x , $(8+13)x=\pi/6$, so the value is $1/2$.

03

Expand $\sin(11x+8x)$ with the sum identity, then evaluate at $x=\pi/114$.

$\sin(11x)\cos(8x)+\cos(11x)\sin(8x)$. At the given x , $(11+8)x=\pi/6$, so the value is $1/2$.

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04

Expand $\sin(8x+5x)$ with the sum identity, then evaluate at $x=\pi/78$.

$\sin(8x)\cos(5x)+\cos(8x)\sin(5x)$. At the given x , $(8+5)x=\pi/6$, so the value is $1/2$.

05

Expand $\sin(5x+9x)$ with the sum identity, then evaluate at $x=\pi/84$.

$\sin(5x)\cos(9x)+\cos(5x)\sin(9x)$. At the given x , $(5+9)x=\pi/6$, so the value is $1/2$.

06

Expand $\sin(12x+13x)$ with the sum identity, then evaluate at $x=\pi/150$.

$\sin(12x)\cos(13x)+\cos(12x)\sin(13x)$. At the given x , $(12+13)x=\pi/6$, so the value is $1/2$.