

The In Depth Analysis of Double Angles Identities Pre Calculus Honors 7 3 Part 1

Lesson 229 | Precalculus | Double-angle identities

<https://www.youtube.com/watch?v=fsx4aszCG3E>

Original practice aligned to the saved video title.

Name: _____ Date: _____ Show your reasoning.

01

An acute angle θ has $\tan \theta = 7/2$. Find exact $\sin(2\theta)$, $\cos(2\theta)$, and $\tan(2\theta)$ when defined.

02

An acute angle θ has $\tan \theta = 10/6$. Find exact $\sin(2\theta)$, $\cos(2\theta)$, and $\tan(2\theta)$ when defined.

03

An acute angle θ has $\tan \theta = 10/5$. Find exact $\sin(2\theta)$, $\cos(2\theta)$, and $\tan(2\theta)$ when defined.

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04

An acute angle θ has $\tan \theta = 14/6$. Find exact $\sin(2\theta)$, $\cos(2\theta)$, and $\tan(2\theta)$ when defined.

05

An acute angle θ has $\tan \theta = 11/13$. Find exact $\sin(2\theta)$, $\cos(2\theta)$, and $\tan(2\theta)$ when defined.

06

An acute angle θ has $\tan \theta = 10/2$. Find exact $\sin(2\theta)$, $\cos(2\theta)$, and $\tan(2\theta)$ when defined.

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01

An acute angle θ has $\tan \theta = 7/2$. Find exact $\sin(2\theta)$, $\cos(2\theta)$, and $\tan(2\theta)$ when defined.

Use denominators $1 + \tan^2 \theta$: $\sin(2\theta) = 28/53$; $\cos(2\theta) = -45/53$; $\tan(2\theta) = -28/45$.

02

An acute angle θ has $\tan \theta = 10/6$. Find exact $\sin(2\theta)$, $\cos(2\theta)$, and $\tan(2\theta)$ when defined.

Use denominators $1 + \tan^2 \theta$: $\sin(2\theta) = 15/17$; $\cos(2\theta) = -8/17$; $\tan(2\theta) = -15/8$.

03

An acute angle θ has $\tan \theta = 10/5$. Find exact $\sin(2\theta)$, $\cos(2\theta)$, and $\tan(2\theta)$ when defined.

Use denominators $1 + \tan^2 \theta$: $\sin(2\theta) = 4/5$; $\cos(2\theta) = -3/5$; $\tan(2\theta) = -4/3$.

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04

An acute angle θ has $\tan \theta = 14/6$. Find exact $\sin(2\theta)$, $\cos(2\theta)$, and $\tan(2\theta)$ when defined.

Use denominators $1 + \tan^2 \theta$: $\sin(2\theta) = 21/29$; $\cos(2\theta) = -20/29$; $\tan(2\theta) = -21/20$.

05

An acute angle θ has $\tan \theta = 11/13$. Find exact $\sin(2\theta)$, $\cos(2\theta)$, and $\tan(2\theta)$ when defined.

Use denominators $1 + \tan^2 \theta$: $\sin(2\theta) = 143/145$; $\cos(2\theta) = 24/145$; $\tan(2\theta) = 143/24$.

06

An acute angle θ has $\tan \theta = 10/2$. Find exact $\sin(2\theta)$, $\cos(2\theta)$, and $\tan(2\theta)$ when defined.

Use denominators $1 + \tan^2 \theta$: $\sin(2\theta) = 5/13$; $\cos(2\theta) = -12/13$; $\tan(2\theta) = -5/12$.