

# What three word phrase is the definition of a good time?

Use the double angle identities to simplify each expression.

1.  $\frac{\sin 2\theta}{2 \sin^2 \theta}$

6.  $(\sin \theta + \cos \theta)^2$

2.  $\sin 2\theta \sec \theta$

7.  $\frac{\sin 2\theta}{2 \sin \theta}$

3.  $2 \sin^2 \theta + \cos 2\theta$

8.  $\frac{2 \tan \theta}{1 + \tan^2 \theta}$

4.  $\frac{\sin^2 \theta}{\sin 2\theta}$

9.  $(\cos \theta + \sin \theta)(\cos \theta - \sin \theta)$

5.  $\frac{\sin 2\theta}{2 \tan \theta}$

10.  $(\tan 2\theta)(1 - \tan^2 \theta)$

Answer	Letter
$2 \sin \theta$	A
$\cot \theta$	H
$\sin 2\theta + 1$	I
$2 \tan \theta$	M
1	O
$\cos 2\theta$	P
$\cos \theta$	R
$\frac{\tan \theta}{2}$	S
$\sin 2\theta$	T
$\cos^2 \theta$	W

$\frac{\quad}{9}$   $\frac{\quad}{7}$   $\frac{\quad}{3}$   $\frac{\quad}{10}$     
  $\frac{\quad}{5}$   $\frac{\quad}{6}$   $\frac{\quad}{8}$   $\frac{\quad}{1}$     
  $\frac{\quad}{4}$   $\frac{\quad}{2}$   $\frac{\quad}{10}$     
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