Pre-Calculus – Day 36
Formative Ticket
Applying the Double Angle Identity

DOUBLE-ANGLE IDENTITIES

SINE	COSINE	TANGENT
$\sin(2A) = 2\sin A \cos A$	$\cos(2A) = \cos^2 A - \sin^2 A$	$\tan(2A) = \frac{2\tan A}{1 - \tan^2 A}$
	$\cos(2A) = 1 - 2\sin^2 A$	
	$\cos(2A) = 2\cos^2 A - 1$	

Example 1 (Finding Function Values of 2θ Given Information About θ): Given that $\sin\theta = \frac{8}{17}$ and $\cos\theta < 0$, find the values of $\sin 2\theta, \cos 2\theta$, and $\tan 2\theta$.

Example 2 (Practice): Find the values of $\sin 2\theta, \cos 2\theta$, and $\tan 2\theta$ given that $\cos\theta = -\frac{12}{13}$ and that $180° < \theta < 270°$.