

Name _____

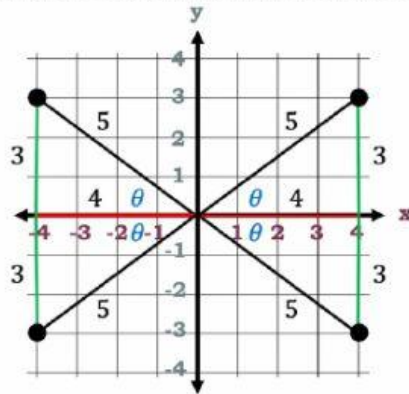
Date _____

Year Group _____

Use the half-angle formulas to find the exact values

Find the exact values of $\sin(2\theta)$, $\cos(2\theta)$, and $\tan(2\theta)$ for $\sec(\theta) = \frac{5}{4}$; $-90^\circ < \theta < 0^\circ$

1. Please click on the triangle that makes the given true



2. Find the values of the following trigonometric functions

Answer => $\sin(\theta) = \frac{\quad}{\quad}$ $\cos(\theta) = \frac{\quad}{\quad}$ $\tan(\theta) = \frac{\quad}{\quad}$

3. Find $\sin(2\theta)$, $\cos(2\theta)$, and $\tan(2\theta)$

$$\sin(2\theta) = 2 * \sin \theta * \cos \theta$$

$$\cos(2\theta) = \cos^2 \theta - \sin^2 \theta$$

Steps => $2 * \left(\frac{\quad}{\quad} \right) * \left(\frac{\quad}{\quad} \right)$

Steps=> $\left(\frac{\quad}{\quad} \right)^2 - \left(\frac{\quad}{\quad} \right)^2$

Steps => $\frac{\quad}{\quad} * 2 * \frac{\quad}{\quad} * \frac{\quad}{\quad}$

Steps=> $\frac{\quad}{\quad} - \frac{\quad}{\quad}$

Answer => $\frac{\quad}{\quad}$

Answer=> $\frac{\quad}{\quad}$

$$\tan(2\theta) = \frac{2 * \tan \theta}{1 - \tan^2 \theta} \quad \text{Answer => } \frac{\quad}{\quad}$$