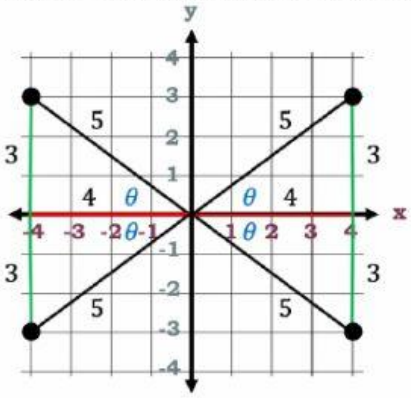
Name _____ Date _____

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 $\sec(\theta) = \frac{5}{4}$; $-90° < \theta < 0°$

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




2. Find the values of the following trigonometric functions

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

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

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

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

Steps => $___2 * \frac{___}{___} * \frac{___}{___}$

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

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

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

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

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

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

LIVEWORKSHEETS