Clicker Question 1

Which expression-substitution pair would result in an expression that the identity $1 + \tan^2\theta = \sec^2\theta$ would simplify?

(A) $\sqrt{a^2 + x^2}, x = a\sec\theta$

(B) $\sqrt{a^2 + x^2}, x = a\tan\theta$

(C) $\sqrt{x^2 - a^2}, x = a\tan\theta$

(D) $\sqrt{x^2 - a^2}, x = a\sec\theta$

(E) None of the above can be simplified with that identity.

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Clicker Question 2

If $\tan\theta = \frac{x}{5}$, then which of the following is true?

(A) $\sin\theta = \frac{5}{x}$

(B) $\sin\theta = \frac{5}{\sqrt{x^2+25}}$

(C) $\sin\theta = \frac{\sqrt{x^2+25}}{x}$

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