

Evaluate each expression using cofunction identities.

1)  $4 - \frac{\sin 27^\circ}{\cos 63^\circ}$

2)  $\sec \frac{\pi}{6} + \frac{9 \cos \frac{14\pi}{45}}{\sin \frac{17\pi}{90}}$

3)  $\sec^2 \frac{3\pi}{10} \sin^2 \frac{3\pi}{10}$

5)  $\frac{\tan 71^\circ}{7 \cot 19^\circ} - 2 \sin 0 - \cot^2 \frac{13\pi}{36}$

7)  $\frac{\cot 39^\circ \cot 77^\circ}{5 \tan 51^\circ \tan 13^\circ \tan 60^\circ}$

8)  $\csc^3 7^\circ - \frac{\csc 14^\circ}{\sec 76^\circ} - \sec^3 83^\circ$

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## Evaluate

Evaluate each expression using cofunction identities.

$$1) \quad 4 - \frac{\sin 27^\circ}{\cos 63^\circ}$$

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$$2) \quad \sec \frac{\pi}{6} + \frac{9 \cos \frac{14\pi}{45}}{\sin \frac{17\pi}{90}}$$

$$\frac{2\sqrt{3} + 27}{3}$$

$$3) \quad \sec^2 \frac{3\pi}{10} \sin^2$$

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$$5) \quad \frac{\tan 71^\circ}{7 \cot 19^\circ} -$$

$$-\frac{20}{7}$$

$$2 \sin 0 - \cot^2 \frac{13\pi}{36}$$

$$7) \quad \frac{\cot 39^\circ \cot 77^\circ}{5 \tan 51^\circ \tan 13^\circ \tan 60^\circ}$$

$$\frac{\sqrt{3}}{15}$$

$$8) \quad \csc^3 7^\circ - \frac{\csc 14^\circ}{\sec 76^\circ} - \sec^3 83^\circ$$

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