

Find the exact value of the following identities using the given information.

1) $\sin A = \frac{3}{5}$ and lies in quadrant I, and $\sin B = \frac{5}{13}$ and lies in quadrant II.

a) $\cos(A + B) =$

b) $\sin(A + B) =$

2) $\cos A = \frac{8}{17}$ and lies in quadrant IV, and $\sin B = -\frac{1}{2}$ and lies in quadrant III.

a) $\cos(A - B) =$

b) $\sin(A - B) =$

3) $\sin A = \frac{4}{5}$ and lies in quadrant I, and $\sin B = \frac{7}{25}$ and lies in quadrant II.

a) $\cos(A + B) =$

b) $\sin(A - B) =$

4) $\tan A = -\frac{3}{4}$ and lies in quadrant II, and $\cos B = \frac{1}{3}$ and lies in quadrant I.

a) $\cos(A - B) =$

b) $\sin(A + B) =$

5) $\tan A = \frac{3}{4}, \pi < A < \frac{3\pi}{2}$, and $\cos B = \frac{1}{4}, \frac{3\pi}{2} < B < 2\pi$

a) $\cos(A + B) =$

b) $\sin(A + B) =$

6) $\sin A = \frac{5}{6}, \frac{\pi}{2} < A < \pi$, and $\tan B = \frac{3}{7}, \pi < B < \frac{3\pi}{2}$

a) $\cos(A - B) =$

b) $\sin(A - B) =$

7) $\sin A = \frac{5}{13}, 0 < A < \frac{\pi}{2}$, and $\cos B = \frac{3}{5}, 0 < B < \frac{\pi}{2}$

a) $\cos(A + B) =$

b) $\sin(A - B) =$

8) $\sin A = \frac{9}{41}, \frac{\pi}{2} < A < \pi$, and $\cos B = \frac{-8}{17}, \frac{\pi}{2} < B < \pi$

a) $\cos(A - B) =$

b) $\sin(A + B) =$