Name : _____

Sum & Difference Identities

If $\sin A = \frac{3}{5}$ and $\cos B = \frac{9}{41}$, where $0^0 \le A \le 90^0$ and $0^0 \le B \le 90^0$, find the exact values of the following.

1) $\sin(A + B)$

2) $\cos(A - B)$

3) $\tan(A + B)$

Name : _____

Answer key

Sheet 1

Sum & Difference Identities

If $\sin A = \frac{3}{5}$ and $\cos B = \frac{9}{41}$, where $0^0 \le A \le 90^0$ and $0^0 \le B \le 90^0$, find the exact values of the following.

1) $\sin(A + B)$

$\cos A = \frac{4}{5}$; $\sin B = \frac{40}{41}$

$\sin(A + B) = \frac{187}{205}$

2) $\cos(A - B)$

$\cos A = \frac{4}{5}$; $\sin B = \frac{40}{41}$

$\cos(A - B) = \frac{156}{205}$

3) $\tan(A + B)$

$\tan A = \frac{3}{4}$; $\tan B = \frac{40}{9}$

$\tan(A + B) = -\frac{187}{84}$