

NAME: _____

1. 080126b, P.I. A2.A.76

If $\sin x = \frac{4}{5}$, where $0^\circ < x < 90^\circ$, find the value of $\cos(x + 180^\circ)$.

2. 080409b, P.I. A2.A.76

If $\sin A = \frac{4}{5}$, $\tan B = \frac{5}{12}$, and angles A and B are in Quadrant I, what is the value of $\sin(A + B)$?

[A] $\frac{33}{65}$ [B] $\frac{63}{65}$ [C] $-\frac{63}{65}$ [D] $-\frac{33}{65}$

3. 060312b, P.I. A2.A.76

If A and B are positive acute angles, $\sin A = \frac{5}{13}$, and $\cos B = \frac{4}{5}$, what is the value of $\sin(A + B)$?

[A] $-\frac{16}{65}$ [B] $\frac{33}{65}$ [C] $\frac{56}{65}$ [D] $\frac{63}{65}$

4. 080316b, P.I. A2.A.76

If $\sin x = \frac{12}{13}$, $\cos y = \frac{3}{5}$, and x and y are acute angles, the value of $\cos(x - y)$ is

[A] $\frac{21}{65}$ [B] $-\frac{33}{65}$ [C] $-\frac{14}{65}$ [D] $\frac{63}{65}$

5. 010401b, P.I. A2.A.76

The expression $\cos 40^\circ \cos 10^\circ + \sin 40^\circ \sin 10^\circ$ is equivalent to

[A] $\sin 30^\circ$ [B] $\cos 50^\circ$
[C] $\cos 30^\circ$ [D] $\sin 50^\circ$

[2] $-\frac{3}{5}$, and appropriate work is shown, such

as $\cos(x + 180) = \cos x \cos 180^\circ - \sin x \sin$

$$180^\circ = \frac{3}{5}(-1) - \frac{4}{5}(0).$$

or [2] $-\frac{3}{5}$, and appropriate work is shown,

such as $\cos(x + 180) = -\cos x$.

or [2] $-\frac{3}{5}$, and angle x is found, and correct

substitution leads to $\cos(x + 180)$.

[1] Appropriate work is shown, but one computational error is made.

or [1] $\cos x = \frac{4}{5}$ is found, but substitution

errors are made.

or [1] $-\frac{3}{5}$, but no work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[1] incorrect procedure.

[2] B

[3] C

[4] D

[5] C
