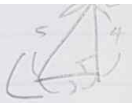
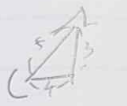


$16+x^2=25$

$x^2=9$

$x=3$

$\therefore \cos A=\frac{3}{5}$



$\therefore \cos B=\frac{4}{5}$

답: $A+B=\arctan(1)$

$\therefore \sin(A+B)=\frac{4}{5}\times\frac{4}{5}+\frac{3}{5}\times\frac{3}{5}$

$=\frac{16}{25}+\frac{9}{25}$

$=\frac{25}{25}$

$=1$

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문제 7, 2, 4).

$\arctan\left(\frac{1}{2}\right)+\arctan\left(\frac{1}{3}\right)$ 간단히 하여라.

$\therefore \tan(A+B)=1$

$A+B=\arctan(1)$

Sol)

$\arctan\left(\frac{1}{2}\right)=A \quad \cdots \rightarrow \frac{1}{2}=\tan(A)$

$\arctan\left(\frac{1}{3}\right)=B \quad \cdots \rightarrow \frac{1}{3}=\tan(B)$

$\tan(A+B)=\frac{\tan A+\tan B}{1-\tan A\tan B}=\frac{\frac{1}{2}+\frac{1}{3}}{1-\frac{1}{2}\times\frac{1}{3}}=\frac{\frac{5}{6}}{1-\frac{1}{6}}=\frac{\frac{5}{6}}{\frac{5}{6}}=1$

P.169

1. 다음 값을 구하여라.

(1) $\cos^{-1}\left[\cos\left(-\frac{\pi}{2}\right)\right]$

Sol)

$\cos\left(-\frac{\pi}{2}\right) = -1$ 답: $\frac{\pi}{2}$

$\cos^{-1}(-1) = A$

$-1 = \cos(A)$

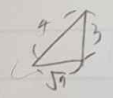
$A = \frac{\pi}{2}$

(2) $\sec\left(\sin^{-1}\frac{3}{4}\right)$

sol)

$\sin^{-1}\left(\frac{3}{4}\right) = A$

$\frac{3}{4} = \sin(A)$



$16 = 9 + x^2$

$7 = x^2$

$x = \sqrt{7}$

$\sec(A) = \frac{1}{\cos A} = \frac{1}{\frac{\sqrt{7}}{4}} = \frac{4}{\sqrt{7}} = \frac{4}{7}\sqrt{7}$

답: $\frac{4}{7}\sqrt{7}$