

Name :

Inverse Trigonometric Ratios

Find the measure of each angle to the nearest degree.
One is done for you.

① $\cos A = 0.5878$

② $\sin A = 0.5150$

$A = \cos^{-1}(0.5878) = 54^\circ$

$A = \underline{\hspace{2cm}}$

③ $\tan C = 0.6355$

④ $\sec Y = 1.7289$

$C = \underline{\hspace{2cm}}$

$Y = \underline{\hspace{2cm}}$

⑤ $\cot D = 0.3566$

⑥ $\tan P = 19.0811$

$D = \underline{\hspace{2cm}}$

$P = \underline{\hspace{2cm}}$

Find the value of each inverse trigonometric ratio in radians.
Round your answer to two decimal places.

⑦ $\sin^{-1}(0.5107)$

⑧ $\cos^{-1}(-0.6285)$

⑨ $\tan^{-1}(-0.7518)$

$\underline{\hspace{2cm}}$

$\underline{\hspace{2cm}}$

$\underline{\hspace{2cm}}$

⑩ $\cos^{-1}(0.7431)$

⑪ $\tan^{-1}(0.5317)$

⑫ $\csc^{-1}(1.1254)$

$\underline{\hspace{2cm}}$

$\underline{\hspace{2cm}}$

$\underline{\hspace{2cm}}$

Name :

Inverse Trigonometric Ratios

Answers

① $\cos A = 0.5878$

$A = \underline{\cos^{-1}(0.5878) = 54^\circ}$

② $\sin A = 0.5150$

$A = \underline{\sin^{-1}(0.5150) = 31^\circ}$

③ $\tan C = 0.6355$

$C = \underline{\tan^{-1}(0.6355) = 32^\circ}$

④ $\sec Y = 1.7289$

$Y = \underline{\sec^{-1}(1.7289) = 55^\circ}$

⑤ $\cot D = 0.3566$

$D = \underline{\cot^{-1}(0.3566) = 70^\circ}$

⑥ $\tan P = 19.0811$

$P = \underline{\tan^{-1}(19.0811) = 87^\circ}$

⑦ $\sin^{-1}(0.5107)$

$\underline{0.54}$

⑧ $\cos^{-1}(-0.6285)$

$\underline{2.25}$

⑨ $\tan^{-1}(-0.7518)$

$\underline{-0.64}$

⑩ $\cos^{-1}(0.7431)$

$\underline{0.73}$

⑪ $\tan^{-1}(0.5317)$

$\underline{0.48}$

⑫ $\csc^{-1}(1.1254)$

$\underline{1.09}$