



Mathematics Department

Grade : 11 General

11-9 Inverse Trigonometric Functions

Teacher: Jisha

1. Find $\arcsin 1$

A. 90° B. 30° C. 60° D. 45° E. 0°

2. The value of $\cos^{-1} \left(-\frac{\sqrt{3}}{2} \right)$ is

A. $\frac{5\pi}{6}$ B. $-\frac{5\pi}{6}$ C. $\frac{\pi}{6}$ D. $-\frac{\pi}{6}$

3. $\tan(\cos^{-1}(-1)) =$

A. Undefined B. 0 C. $\frac{1}{2}$ D. 1

4. $\tan\left(\sin^{-1} \frac{3}{5}\right) = ?$

A. $2/3$ B. $3/4$ C. $1/2$ D. $3/5$

5. **SENSE-MAKING** A boat is traveling west to cross a river that is 190 m wide. Because of the current, the boat lands at point Q, which is 59 m from its original destination point P. Write an inverse trigonometric function that can be used to find θ , the angle at which the boat veered south of the horizontal line. Then find the measure of the angle to the nearest tenth.



A. $\text{Arctan} \frac{59}{190} = \theta; 17.3^\circ$ B. $\text{Arcsin} \frac{59}{190} = \theta; 40.9^\circ$

C. $\text{Arccos} \frac{59}{190} = \theta; 71.9^\circ$ D. $\text{Arctan} \frac{190}{59} = \theta; 72.7^\circ$