

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. $\frac{2}{3}$ B. $\frac{3}{4}$ C. $\frac{1}{2}$ D. $\frac{3}{5}$

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