

A2.A.64: Using Inverse Trigonometric Functions 5: Use inverse functions to find the measure of an angle, given its sine, cosine, or tangent

1 Find $\tan\left(\text{Arc sin } \frac{\sqrt{2}}{2}\right)$.

2 Evaluate: $\text{Arc sin}(\cos 60^\circ)$

3 What is the value of $\sin(\text{Arc tan } \sqrt{3})$?

4 Find the value of $\cos\left(\text{Arc sin } \frac{3}{5}\right)$.

5 If the sine of an angle is $\frac{3}{5}$ and the angle is *not* in Quadrant I, what is the value of the cosine of the angle?

6 If x is a positive acute angle and $\cos x = \frac{3}{5}$, find the value of $\sin x$.

7 Find the value of $\tan\left(\text{Arc sin } \frac{3}{5}\right)$.

8 Find $\tan\left(\text{Arc cos } \frac{3}{5}\right)$.

9 Find the value of $\cos\left(\text{Arc sin } \frac{4}{5}\right)$.

10 If $\sin \theta = -\frac{4}{5}$ and θ is in Quadrant IV, find $\tan \theta$.

11 If $\tan A = \frac{-5}{12}$ and $\cos A > 0$, find $\sin A$.

12 Find the value of $\cos\left(\text{Arc sin } \frac{5}{13}\right)$.

13 Find $\tan\left(\text{Arc sin } \frac{5}{13}\right)$.

14 If θ terminates in Quadrant II and $\sin \theta = \frac{12}{13}$, find $\cos \theta$.

15 Find the value of $\sin\left(\text{Arc tan } \frac{\sqrt{3}}{3}\right)$.

16 If $\sin \theta = -\frac{8}{17}$ and $\tan \theta$ is positive, what is the value of $\cos \theta$?

17 What is the value of $\sin(\text{Arc cos } \frac{8}{17})$?

18 Find the value of $\tan\left(\text{Arc sin } \frac{5}{6}\right)$.

A2.A.64: Using Inverse Trigonometric Functions 5: Use inverse functions to find the measure of an angle, given its sine, cosine, or tangent

Answer Section

1 ANS:
1

PTS: 2 REF: 068105siii

2 ANS:
 30°

PTS: 2 REF: 089404siii

3 ANS:
 $\frac{\sqrt{3}}{2}$

PTS: 2 REF: 080003siii

4 ANS:
 $\frac{4}{5}$

PTS: 2 REF: 018504siii

5 ANS:
 $-\frac{4}{5}$

PTS: 2 REF: 080121b

6 ANS:
 $\frac{4}{5}$

PTS: 2 REF: 019003siii

7 ANS:
 $\frac{3}{4}$

PTS: 2 REF: 068516siii

8 ANS:
 $\frac{4}{3}$

PTS: 2 REF: 018417siii

9 ANS:
 $\frac{3}{5}$

PTS: 2 REF: 018908siii

10 ANS:

$$-\frac{4}{3}$$

PTS: 2

REF: 089007siii

11 ANS:

$$-\frac{5}{13}$$

PTS: 2

REF: 068013siii

12 ANS:

$$\frac{12}{13}$$

PTS: 2

REF: 068808siii

13 ANS:

$$\frac{5}{12}$$

PTS: 2

REF: 068711siii

14 ANS:

$$-\frac{5}{13}$$

PTS: 2

REF: 019611siii

15 ANS:

$$\frac{1}{2}$$

PTS: 2

REF: 019511siii

16 ANS:

$$-\frac{15}{17}$$

PTS: 2

REF: 089712siii

17 ANS:

$$\frac{15}{17}$$

PTS: 2

REF: 010114siii

18 ANS:

$$\frac{5}{\sqrt{11}}$$

PTS: 2

REF: 069808siii