## F.TF.B.7: Using Inverse Trigonometric Functions 3

1  The value of $\sin(\text{Arc}\cos 1)$ is

1) 1   2) $\frac{1}{2}$   3) $\frac{1}{2}\sqrt{3}$   4) 0

2  Evaluate: $\cos[\text{Arcsin}(-1)]$.

3  If $f(x) = \sin(\text{Arc}\tan x)$, the value of $f(1)$ is

1) $\sqrt{2}$   2) $\frac{\sqrt{2}}{2}$   3) $\frac{\sqrt{3}}{2}$   4) $\frac{\sqrt{3}}{3}$

4  The value of $\tan(\text{Arc}\sin 1)$ is
1) 1   2) $-1$   3) 90   4) undefined

5  The value of $\cos\left(\text{Arc}\sin\frac{\sqrt{3}}{2}\right)$ is

1) 1   2) $\frac{1}{2}$   3) $\frac{\sqrt{3}}{3}$   4) $\sqrt{3}$

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

7  Evaluate: $\csc\left(\text{Arc}\sin\frac{\sqrt{3}}{2}\right)$

8  Evaluate: $\text{Arc}\sin(\cos 60°)$

9  The value of $\cos\left(\text{Arc}\tan\sqrt{3}\right)$ is

1) 1   2) $\frac{1}{2}$   3) $\frac{1}{2}\sqrt{3}$   4) $\frac{1}{2}\sqrt{2}$

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

11  What is the value of $\tan\left(\text{Arc}\cos -\frac{3}{5}\right)$?

1) $\frac{5}{3}$   2) $\frac{4}{3}$   3) $-\frac{3}{4}$   4) $-\frac{4}{3}$

12  What is the value of $y$ if $y = \sin\left(\text{Arctan}\frac{5}{12}\right)$?

1) $\frac{5}{13}$   2) $\frac{12}{13}$   3) $\frac{13}{12}$   4) $\frac{13}{5}$

13  What is the value of $\tan\left(\text{Arc}\cos\frac{5}{13}\right)$?

1) $\frac{12}{13}$   2) $\frac{5}{12}$   3) $\frac{12}{5}$   4) $\frac{13}{5}$

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

15  What is a value of $\cos\left(\text{Arc}\tan\frac{2}{3}\right)$?

1) $\frac{\sqrt{13}}{3}$   2) $\frac{3\sqrt{13}}{13}$   3) 5   4) 13

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

17  What is the value of $\sec\left(\text{Arc}\cos\frac{5}{7}\right)$?

18  What is the value of $\sin\left(\text{Arc}\cos\frac{1}{x}\right)$?

1) $\frac{\sqrt{1-x^2}}{x}$   2) $\frac{\sqrt{1+x^2}}{x}$   3) $\frac{\sqrt{x^2-1}}{x}$

4) $\frac{x}{\sqrt{x^2+1}}$

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**Answer Section**

1 ANS: 4 REF: 019921siii
2 ANS:
 0

 REF: 019204siii
3 ANS: 2 REF: 060023siii
4 ANS: 4 REF: 010221siii
5 ANS: 2 REF: 069916siii
6 ANS:
 $\dfrac{1}{2}$

 REF: 019511siii
7 ANS:
 $\dfrac{2}{\sqrt{3}}$

 REF: 069410siii
8 ANS:
 30°

 REF: 089404siii
9 ANS: 2 REF: 089320siii
10 ANS:
 $\dfrac{\sqrt{3}}{2}$

 REF: 080003siii
11 ANS: 4 REF: 080123siii
12 ANS: 1 REF: 089817siii
13 ANS: 3 REF: 060322siii
14 ANS:
 $\dfrac{15}{17}$

 REF: 010114siii
15 ANS: 2 REF: 060225siii
16 ANS:
 $\dfrac{5}{\sqrt{11}}$

 REF: 069808siii

17  ANS:

$\dfrac{7}{5}$

REF: 010315siii

18  ANS: 3          REF: 010029siii