

F.TF.A.2: Determining Trigonometric Functions 2b

1 At $x = \frac{\pi}{2}$, the difference $2\sin x - \cos 2x$ is

10 The numerical value of $\sin \frac{3\pi}{2} + \cos \frac{\pi}{4}$ is

2 The value of $\cos^2\left(\frac{\pi}{4}\right)$ is

11 If $f(x) = \sin 2x + \cos x$, what is $f\left(\frac{\pi}{4}\right)$?

3 If $f(x) = \sin^2 x$, then $f\left(\frac{\pi}{2}\right)$ equals

12 The value of $\sin \frac{7\pi}{6}$ is

4 If $f(x) = \sin x + \cos 2x$, then $f(\pi)$ is

13 If $f(x) = 4\cos 3x$, what is the value of $f\left(\frac{\pi}{4}\right)$?

5 The value of $\sin \frac{\pi}{3} \cos \pi$ is

14 The value of $\sin \frac{3\pi}{2} + \cos \frac{2\pi}{3}$ is

6 If $f(x) = \sin \frac{x}{4}$, then $f(\pi)$ equals

15 The value of $\sin \frac{4\pi}{3}$ is

7 The value of $\cos \frac{\pi}{3} - \sin \frac{3\pi}{2}$ is

16 If $f(x) = \cos x + \tan \frac{x}{3}$, then $f(\pi)$ is

8 If $f(x) = \cos 3x + \sin x$, then $f\left(\frac{\pi}{2}\right)$ equals

17 The value of $\sin \frac{\pi}{6} + \tan \frac{\pi}{4}$ is

9 The value of $\sin\left(\frac{3\pi}{2}\right) - \cos\left(\frac{\pi}{3}\right)$ is

18 Which expression, when rounded to three decimal places, is equal to -1.155 ?

- 1) $\sec\left(\frac{5\pi}{6}\right)$
- 2) $\tan(49^\circ 20')$
- 3) $\sin\left(-\frac{3\pi}{5}\right)$
- 4) $\csc(-118^\circ)$

**F.TF.A.2: Determining Trigonometric Functions 2b
Answer Section**

1 ANS:

3

REF: 068437siii

2 ANS:

 $\frac{1}{2}$

REF: 088426siii

3 ANS:

1

REF: 089322siii

4 ANS:

1

REF: 068924siii

5 ANS:

 $-\frac{\sqrt{3}}{2}$

REF: 088935siii

6 ANS:

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

REF: 019420siii

7 ANS:

 $1\frac{1}{2}$

REF: 069531siii

8 ANS:

1

REF: 069718siii

9 ANS:

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

REF: 089722siii

10 ANS:

$$-1 + \frac{\sqrt{2}}{2}$$

REF: 010017siii

11 ANS:

$$1 + \frac{\sqrt{2}}{2}$$

REF: 080317siii

12 ANS:

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

REF: 018732siii

13 ANS:

$$-2\sqrt{2}$$

REF: 089626siii

14 ANS:

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

REF: 069819siii

15 ANS:

$$-\frac{\sqrt{3}}{2}$$

REF: 060120siii

16 ANS:

$$\sqrt{3} - 1$$

REF: 068129siii

17 ANS:

$$\frac{3}{2}$$

REF: 068528siii

18 ANS: 1

REF: 011203a2