

**F.TF.A.2: Determining Trigonometric Functions 3**

- 1 Find the value of  $\sin^2 \frac{\pi}{3}$ .
- 2 Find the value of  $\sin \frac{\pi}{2} - \cos \frac{3\pi}{2}$ .
- 3 If  $f(x) = 3 \cos x$ , find the numerical value of  $f(\pi)$ .
- 4 If  $f(x) = 2 \cos x$ , find  $f\left(\frac{\pi}{3}\right)$ .
- 5 If  $f(x) = \sin x + \cos \frac{x}{2}$ , find  $f(2\pi)$ .
- 6 If  $f(x) = \cos 2x$ , find  $f\left(\frac{\pi}{2}\right)$ .
- 7 If  $f(x) = \cos x + \sin x$ , find the value of  $f(x)$  when  $x = \frac{3\pi}{2}$ .
- 8 Evaluate:  $\cos \frac{\pi}{2} + \sin \frac{3\pi}{2}$
- 9 If  $f(x) = 4 \sin \frac{x}{3}$ , find  $f(\pi)$ .
- 10 If  $f(x) = \sin^2 x + \cos^2 x$ , find  $f\left(\frac{\pi}{4}\right)$ .
- 11 If  $f(x) = 2 \sin^2 x + \sin x + 1$ , find the value of  $f\left(\frac{\pi}{6}\right)$ .
- 12 If  $f(x) = \sin 3x + \cos x$ , what is  $f\left(\frac{\pi}{2}\right)$ ?
- 13 If  $f(x) = \sin \frac{1}{2}x + 2 \cos x$ , evaluate  $f(\pi)$ .
- 14 If  $f(x) = 2 \cos^2 x + \sin x - 1$ , find the value of  $f\left(\frac{\pi}{2}\right)$ .
- 15 If  $f(x) = \sin 2x + \cos x$ , find the value of  $f\left(\frac{\pi}{2}\right)$ .
- 16 Find the value of  $\cos \frac{5\pi}{3}$ .
- 17 If  $f(x) = \sin x + \cos x$ , evaluate  $f(2\pi)$ .
- 18 What is the numerical value of the product  $\left(\tan \frac{\pi}{4}\right)\left(\cos \frac{\pi}{3}\right)$ ?
- 19 If  $f(\theta) = \tan \theta - 2 \cos \theta$ , find  $f(\pi)$ .
- 20 If  $f(x) = \tan x$ , evaluate  $f\left(\frac{\pi}{4}\right)$ .

**F.TF.A.2: Determining Trigonometric Functions 3**  
**Answer Section**

1 ANS:

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

REF: 018402siii

2 ANS:

$$1$$

REF: 068415siii

3 ANS:

$$-3$$

REF: 018511siii

4 ANS:

$$1$$

REF: 088711siii

5 ANS:

$$-1$$

REF: 010408siii

6 ANS:

$$-1$$

REF: 019012siii

7 ANS:

$$-1$$

REF: 069406siii

8 ANS:

$$-1$$

REF: 019507siii

9 ANS:

$$2\sqrt{3}$$

REF: 069510siii

10 ANS:

$$1$$

REF: 019606siii

11 ANS:

$$2$$

REF: 019812siii

12 ANS:  
-1

REF: 019905siii

13 ANS:  
-1

REF: 069909siii

14 ANS:  
0

REF: 010011siii

15 ANS:  
0

REF: 060002siii

16 ANS:  
0.5

REF: 068018siii

17 ANS:  
1

REF: 089902siii

18 ANS:  
 $\frac{1}{2}$

REF: 068814siii

19 ANS:  
2

REF: 089936siii

20 ANS:  
1

REF: 010102siii