Name: _____

F.TF.C.9: Angle Sum and Difference Identities 3

1 The expression $\cos(\pi - x)$ is equivalent to
1) $\sin x$
2) $-\sin x$
3) $\cos x$
4) $-\cos x$

2 The expression $\cos(90° + \theta)$ is equivalent to
1) $\cos\theta$
2) $-\cos\theta$
3) $\sin\theta$
4) $-\sin\theta$

3 The expression $\sin(\theta + 90)°$ is equivalent to
1) $-\sin\theta$
2) $-\cos\theta$
3) $\sin\theta$
4) $\cos\theta$

4 The expression $\sin(90° - \theta)$ is equivalent to
1) $\cos\theta$
2) $\sin\theta$
3) $-\cos\theta$
4) $-\sin\theta$

5 The expression $\sin(180° - x)$ is equivalent to
1) $\sin x$
2) $\cos x$
3) $-\sin x$
4) $-\cos x$

6 The expression $\cos(270° - A)$ is equivalent to
1) $\cos A$
2) $-\cos A$
3) $\sin A$
4) $-\sin A$

7 The value of $\sin(180 + x)$ is equivalent to
1) $-\sin x$
2) $-\sin(90 - x)$
3) $\sin x$
4) $\sin(90 - x)$

8 The expression $\tan(180° - y)$ is equivalent to
1) -1
2) $\frac{-\tan y}{1 + \tan y}$
3) $-\tan y$
4) $\frac{1 - \tan y}{1 + \tan y}$

9 The expression $\tan(180° + x)$ is equivalent to
1) $\cot x$
2) $\tan x$
3) $-\cot x$
4) $-\tan x$

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Answer Section

1 ANS: 4
$\cos(\pi - x) = \cos\pi\cos x + \sin\pi\sin x = (-1)\cos x + 0\sin x = -\cos x$

REF: 010818b
2 ANS: 4 REF: 068127siii
3 ANS: 4
$\sin(\theta + 90) = \sin\theta \cdot \cos 90 + \cos\theta \cdot \sin 90 = \sin\theta \cdot (0) + \cos\theta \cdot (1) = \cos\theta$

REF: 061309a2
4 ANS: 1 REF: 068630siii
5 ANS: 1 REF: 019635siii
6 ANS: 4 REF: 060033siii
7 ANS: 1
$\sin(180 + x) = (\sin 180)(\cos x) + (\cos 180)(\sin x) = 0 + (-\sin x) = -\sin x$

REF: 011318a2
8 ANS: 3 REF: 069033siii
9 ANS: 2 REF: 089530siii