

Practice for Bonus Question of Test 6

Math 130 *Kovitz* Fall 2018: the test is on Tuesday, December 11.

True or false:

1. The equation $\sin \theta = -\frac{1}{2}$ has solutions $7\pi/6$ and $11\pi/6$ in the interval $[0, 2\pi]$
2. The equation $\sin x = \cos x$ has exactly one solution in $[0, \pi]$.
3. $\frac{\sin 2x}{1 - \sin^2 x} = \tan x$.
4. $\frac{1}{2} \sin 2x = \sin x \cos x$.
5. $\cos^2 \theta = \frac{1 + \cos 2\theta}{2}$.
6. The cosine of the supplement is equal to the sine of the complement.
7. The sine of the complement of angle θ is equal to the cosine of minus θ .

Answers follow.

Answers.

1. True.
2. True.
3. False. It equals $2 \tan x$.
4. True.
5. True.
6. False. It is minus the sine of the complement.
7. True.