

Algebra II Practice Quiz 13.3

1. (10 points) Convert 288° to radians.

2. (10 points) Evaluate the expression $\cos\left(\frac{7}{4}\pi\right)$.

3. (10 points) Evaluate the expression $\tan\left(-\frac{257\pi}{4}\right)$.

4. (10 points) Use a reference angle to find the exact value of $\sin 300^\circ$.

5. (10 points) Use the unit circle to find the exact value of the trigonometric function $\cos 30^\circ$.

6. (10 points) A bicycle tire with a diameter of 26 inches makes 3 revolutions per second. To the nearest mile, how far does a point on the edge of the tire travel in one hour? (Hint: Find how far the bicycle travels in one hour.)

7. (10 points) Convert $\frac{17\pi}{10}$ from radians to degrees.

8. (10 points) Convert $\frac{\pi}{9}$ from radians to degrees.

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Answer Section

SHORT ANSWER

1. ANS:

$$\frac{8}{5}\pi$$

PTS: 10

2. ANS:

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

PTS: 10

3. ANS:

$$-1$$

PTS: 10

4. ANS:

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

PTS: 10

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5. ANS:

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

PTS: 10

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6. ANS:

14 miles

PTS: 10

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7. ANS:

$$306^\circ$$

PTS: 10

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8. ANS:

$$20^\circ$$

PTS: 10

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