Name _____ Score _____ Teacher _____ Date _____

Trigonometric Equations on Bounded Intervals

Find every distinct exact solution in the stated half-open interval. Check endpoints and exclude values where the original expression is undefined.

1. **Solve sin(x) = -1/2 for all x in [0, 2pi).**

2. **Solve 2 tan(2x - pi/6) = 0 for all x in [0, 2pi).**

Show exact work and respect the stated original domain.

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Trigonometric Equations on Bounded Intervals

Find every distinct exact solution in the stated half-open interval. Check endpoints and exclude values where the original expression is undefined.

3. **Solve -sin(3x + pi/4) = -sqrt(3)/2 for all x in [0, 2pi).**

4. **Solve sin(x - pi/3) = sqrt(2)/2 for all x in [0, 2pi).**

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Trigonometric Equations on Bounded Intervals

Find every distinct exact solution in the stated half-open interval. Check endpoints and exclude values where the original expression is undefined.

5. **Solve cos(2x) = -1/2 for all x in [0, 2pi).**

6. **Solve 2 tan(3x - pi/6) = -2sqrt(3)/3 for all x in [0, 2pi).**

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Trigonometric Equations on Bounded Intervals

Find every distinct exact solution in the stated half-open interval. Check endpoints and exclude values where the original expression is undefined.

7. **Solve tan(x + pi/4) = 1 for all x in [0, 2pi).**

8. **Solve 2 cos(2x - pi/3) = sqrt(2) for all x in [0, 2pi).**