

**Trigonometric Equations - Matching Worksheet**

Write the letter of the answer that matches the problem.

1. Solve the equation:

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$$2 \cos x - \sqrt{3} = 0; x [0 \leq x \leq 2\pi].$$

a.  $120^\circ, 240^\circ$ .

2. Solve the equation:

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$$0 \leq x \leq 2\pi,$$

$$\text{Solve the equation } 2 \sin^2 x + 5 \sin x = 3.$$

b.  $60^\circ, 120^\circ$ .

3. Solve the equation:

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$$0 \leq x \leq 2\pi, \text{ Solve the equation } 4 \cos x + 2 = 0.$$

c.  $30^\circ, 330^\circ$ .

4. Solve the equation:

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$$\sin x - \sqrt{3} \cos x = 0; x [0 \leq x \leq 2\pi].$$

d.  $90^\circ, 270^\circ$ .

5. Solve the equation:

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$$0 \leq x \leq 2\pi, \text{ Solve the equation } \sqrt{3} \csc x - 2 = 0.$$

e.  $210^\circ, 330^\circ$ .

6. Solve the equation:

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$$0 \leq x \leq 360^\circ, \text{ Solve the equation } 2 \sin x - \sqrt{3} = 0.$$

f.  $30^\circ, 150^\circ$ .

7. Solve the equation:

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$$0 \leq x \leq 360^\circ,$$

$$\text{Solve the equation } \csc^2 x + 2 \csc x = 0.$$

g.  $60^\circ, 240^\circ$ .

8. Solve the equation:

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$$0 \leq x \leq 360^\circ,$$

$$\text{Solve the equation } \sin 2x + 2 \cos x = 0$$

h.  $240^\circ, 300^\circ$ .