

AP Calculus
Trigonometric Equations

Name _____

Period _____

Solve.

1. $2 \sin \theta - 1 = 0$

2. $\cos \theta + 2 = 2$

3. $\sqrt{2} \cos \theta + 1 = 0$

4. $\cos \theta - \frac{1}{2} = 0$

5. $\tan \theta + 3 = 3$

6. $3 \tan \theta + \sqrt{3} = 0$

7. $2 \cos^2 \theta = \cos \theta$

8. $3 \sin^2 \theta = \cos^2 \theta$

9. $\sin^2 \theta - 3 \cos^2 \theta = 0$

10. $\cos \theta + \sin \theta = 0$

11. $\sec \theta + \csc \theta = 0$

12. $2 \sin^2 \theta = \sin \theta + 1$

13. $2 \cos^2 \theta - \cos \theta = 1$

14. $2 \sin^2 \theta = 9 \sin \theta + 5$

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15. $2 \cos^2 \theta + 7 \cos \theta = 4$

18. $(2 \cos^2 \theta - 1)(\sin^2 \theta - 1) = 0$

16. $(4 \cos^2 \theta - 1)(\cos^2 \theta - 1) = 0$

19. $(4 \sin^2 \theta - 3)(\sqrt{2} \sin \theta - 1) = 0$

17. $(4 \sin^2 \theta - 1)(\sin^2 \theta - 1) = 0$

20. $2 \sin^2 \theta - 11 \sin \theta - 6 = 0$

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| <p>1.
 Answer: $\frac{\pi}{6}, \frac{5\pi}{6}$
 CodePath: EAS.TRI.Q.D.1</p> <p>2.
 Answer: $\frac{\pi}{2}, \frac{3\pi}{2}$
 CodePath: EAS.TRI.Q.D.4</p> <p>3.
 Answer: $\frac{3\pi}{4}, \frac{5\pi}{4}$
 CodePath: EAS.TRI.Q.D.7</p> <p>4.
 Answer: $\frac{\pi}{3}, \frac{5\pi}{3}$
 CodePath: EAS.TRI.Q.D.10</p> <p>5.
 Answer: $0, \pi$
 CodePath: EAS.TRI.Q.D.29</p> <p>6.
 Answer: $\frac{5\pi}{6}, \frac{11\pi}{6}$
 CodePath: EAS.TRI.Q.D.35</p> <p>7.
 Answer: $\frac{\pi}{3}, \frac{\pi}{2}, \frac{3\pi}{2}, \frac{5\pi}{3}$
 CodePath: EAS.TRI.Q.E.4</p> <p>8.
 Answer: $\frac{\pi}{6}, \frac{5\pi}{6}, \frac{7\pi}{6}, \frac{11\pi}{6}$
 CodePath: EAS.TRI.Q.E.5</p> <p>9.
 Answer: $\frac{\pi}{3}, \frac{2\pi}{3}, \frac{4\pi}{3}, \frac{5\pi}{3}$
 CodePath: EAS.TRI.Q.E.6</p> <p>10.
 Answer: $\frac{3\pi}{4}, \frac{7\pi}{4}$
 CodePath: EAS.TRI.Q.E.8</p> <p>11.
 Answer: $\frac{3\pi}{4}, \frac{7\pi}{4}$
 CodePath: EAS.TRI.Q.E.10</p> <p>12.
 Answer: $\frac{\pi}{2}, \frac{7\pi}{6}, \frac{11\pi}{6}$
 CodePath: EAS.TRI.Q.E.13</p> <p>13.
 Answer: $0, \frac{2\pi}{3}, \frac{4\pi}{3}$
 CodePath: EAS.TRI.Q.E.14</p> | <p>14.
 Answer: $\frac{7\pi}{6}, \frac{11\pi}{6}$
 CodePath: EAS.TRI.Q.E.15</p> <p>15.
 Answer: $\frac{\pi}{3}, \frac{5\pi}{3}$
 CodePath: EAS.TRI.Q.E.16</p> <p>16.
 Answer: $0, \frac{\pi}{3}, \frac{2\pi}{3}, \pi, \frac{4\pi}{3}, \frac{5\pi}{3}$
 CodePath: EAS.TRI.Q.E.17</p> <p>17.
 Answer: $\frac{\pi}{6}, \frac{\pi}{2}, \frac{5\pi}{6}, \frac{7\pi}{6}, \frac{3\pi}{2}, \frac{11\pi}{6}$
 CodePath: EAS.TRI.Q.E.18</p> <p>18.
 Answer: $\frac{\pi}{4}, \frac{\pi}{2}, \frac{3\pi}{4}, \frac{5\pi}{4}, \frac{3\pi}{2}, \frac{7\pi}{4}$
 CodePath: EAS.TRI.Q.E.20</p> <p>19.
 Answer: $\frac{\pi}{4}, \frac{\pi}{3}, \frac{2\pi}{3}, \frac{3\pi}{4}, \frac{4\pi}{3}, \frac{5\pi}{3}$
 CodePath: EAS.TRI.Q.E.23</p> <p>20.
 Answer: $\frac{7\pi}{6}, \frac{11\pi}{6}$
 CodePath: EAS.TRI.Q.E.28</p> |
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