

$$\text{I. } (\operatorname{cosec}(2A - 2))(\cot(3A - 1)) = 0.$$

Then

$$\operatorname{cosec}(2A - 2) = 0 \text{ or } \cot(3A - 1) = 0.$$

$$\text{As } \operatorname{cosec}(2A - 2) = \frac{1}{\sin(2A-2)} \neq 0, \text{ so } \cot(3A - 1) = 0.$$

$$\cot(3A - 1) = \frac{\cos(3A-1)}{\sin(3A-1)} = 0.$$

$$\text{Then } \cos(3A - 1) = 0, 3A - 1 = \frac{\pi}{2} + \pi n, n \in Z.$$

$$\text{Finally, } A = \frac{1}{3} + \frac{\pi}{6} + \frac{\pi n}{3}, n \in Z.$$

$$\text{II. } \cos(3A) * (2 \sin(2A) - 1) = 0$$

Then

$$\cos(3A) = 0 \text{ or } (2 \sin(2A) - 1) = 0.$$

For the first equation:

$$3A = \frac{\pi}{2} + \pi n, n \in Z;$$

$$A = \frac{\pi}{6} + \frac{\pi n}{3}, n \in Z.$$

For the second:

$$\sin(2A) = \frac{1}{2},$$

$$2A = \frac{\pi}{6} + 2\pi k \text{ or } 2A = \frac{5\pi}{6} + 2\pi k, k \in Z;$$

$$A = \frac{\pi}{12} + \pi k \text{ or } A = \frac{5\pi}{12} + \pi k, k \in Z.$$

$$\text{Finally, the answer is: } A = \frac{\pi}{6} + \frac{\pi k}{3}, A = \frac{\pi}{12} + \pi k \text{ and } A = \frac{5\pi}{12} + \pi k \text{ for all } k \in Z.$$