

# 三角方程式 1 の解答

氏名 \_\_\_\_\_

1.  $0^\circ \leq \theta < 360^\circ$  のとき、次の方程式を解け。

$$(1) \sin \theta = \frac{\sqrt{2}}{2}$$

$$(11) \cos \theta = \frac{\sqrt{3}}{2}$$

答.  $30^\circ, 330^\circ$

答.  $45^\circ, 135^\circ$

$$(12) \cos \theta = -\frac{\sqrt{2}}{2}$$

答.  $135^\circ, 225^\circ$

答.  $210^\circ, 330^\circ$

$$(13) \cos \theta = -1$$

答.  $180^\circ$

答.  $60^\circ, 120^\circ$

$$(14) \cos \theta = -\frac{1}{2}$$

答.  $120^\circ, 240^\circ$

答.  $30^\circ, 150^\circ$

$$(15) \tan \theta = -1$$

答.  $135^\circ, 315^\circ$

答.  $225^\circ, 315^\circ$

$$(16) \tan \theta = -\frac{\sqrt{3}}{3}$$

答.  $150^\circ, 330^\circ$

答.  $270^\circ$

$$(17) \tan \theta = \frac{\sqrt{3}}{3}$$

答.  $30^\circ, 210^\circ$

答.  $240^\circ, 300^\circ$

$$(18) \tan \theta = \sqrt{3}$$

答.  $60^\circ, 240^\circ$

答.  $60^\circ, 300^\circ$

$$(19) \tan \theta = -\sqrt{3}$$

答.  $120^\circ, 300^\circ$

答.  $150^\circ, 210^\circ$

$$(20) \tan \theta = 1$$

答.  $45^\circ, 225^\circ$

答.  $0^\circ$

$$(10) \cos \theta = 1$$

## 三角方程式 2 の解答

氏名 \_\_\_\_\_

1.  $0^\circ \leq \theta < 360^\circ$  のとき、次の方程式を解け。

(1)  $\sin \theta = -1$

(11)  $\cos \theta = -1$

答.  $180^\circ$

答.  $270^\circ$

(12)  $\cos \theta = 0$

答.  $90^\circ, 270^\circ$

答.  $45^\circ, 135^\circ$

(13)  $\cos \theta = -\frac{\sqrt{2}}{2}$

(3)  $\sin \theta = 0$

答.  $135^\circ, 225^\circ$

答.  $0^\circ, 180^\circ$

(14)  $\tan \theta = \sqrt{3}$

答.  $60^\circ, 240^\circ$

答.  $225^\circ, 315^\circ$

(15)  $\tan \theta = -\sqrt{3}$

答.  $120^\circ, 300^\circ$

答.  $240^\circ, 300^\circ$

(16)  $\tan \theta = 0$

答.  $0^\circ, 180^\circ$

答.  $60^\circ, 120^\circ$

(17)  $\tan \theta = -1$

(7)  $\sin \theta = 1$

答.  $135^\circ, 315^\circ$

答.  $90^\circ$

(18)  $\tan \theta = 1$

答.  $45^\circ, 225^\circ$

答.  $45^\circ, 315^\circ$

(19)  $\tan \theta = \frac{\sqrt{3}}{3}$

(9)  $\cos \theta = \frac{1}{2}$

答.  $30^\circ, 210^\circ$

答.  $60^\circ, 300^\circ$

(20)  $\tan \theta = -\frac{\sqrt{3}}{3}$

(10)  $\cos \theta = \frac{\sqrt{3}}{2}$

答.  $150^\circ, 330^\circ$

答.  $30^\circ, 330^\circ$

### 三角方程式3の解答

氏名 \_\_\_\_\_

1.  $0^\circ \leq \theta < 360^\circ$  のとき、次の方程式を解け。

$$(1) \sin \theta = \frac{1}{2}$$

$$(11) \cos \theta = \frac{\sqrt{3}}{2}$$

答.  $30^\circ, 330^\circ$

答.  $30^\circ, 150^\circ$

$$(12) \cos \theta = -\frac{1}{2}$$

答.  $120^\circ, 240^\circ$

答.  $240^\circ, 300^\circ$

$$(13) \cos \theta = -1$$

$$(3) \sin \theta = 0$$

答.  $180^\circ$

答.  $0^\circ, 180^\circ$

$$(14) \tan \theta = -\frac{\sqrt{3}}{3}$$

$$(4) \sin \theta = 1$$

答.  $150^\circ, 330^\circ$

答.  $90^\circ$

$$(15) \tan \theta = \sqrt{3}$$

$$(5) \sin \theta = -\frac{1}{2}$$

答.  $60^\circ, 240^\circ$

答.  $210^\circ, 330^\circ$

$$(16) \tan \theta = 0$$

$$(6) \sin \theta = -1$$

答.  $0^\circ, 180^\circ$

答.  $270^\circ$

$$(17) \tan \theta = -1$$

$$(7) \cos \theta = \frac{\sqrt{2}}{2}$$

答.  $135^\circ, 315^\circ$

答.  $45^\circ, 315^\circ$

$$(18) \tan \theta = \frac{\sqrt{3}}{3}$$

$$(8) \cos \theta = 0$$

答.  $30^\circ, 210^\circ$

答.  $90^\circ, 270^\circ$

$$(19) \tan \theta = 1$$

$$(9) \cos \theta = -\frac{\sqrt{2}}{2}$$

答.  $45^\circ, 225^\circ$

答.  $135^\circ, 225^\circ$

$$(20) \tan \theta = -\sqrt{3}$$

$$(10) \cos \theta = 1$$

答.  $120^\circ, 300^\circ$

答.  $0^\circ$

## 三角方程式4の解答

氏名 \_\_\_\_\_

1.  $0^\circ \leq \theta < 360^\circ$  のとき、次の方程式を解け。

(1)  $2 \sin \theta - \sqrt{3} = 0$

(11)  $\cos \theta = 0$

答.  $90^\circ, 270^\circ$

答.  $60^\circ, 120^\circ$

(12)  $\cos \theta - 1 = 0$

(2)  $2 \sin \theta = 1$

答.  $0^\circ$

答.  $30^\circ, 150^\circ$

(13)  $2 \cos \theta + 1 = 0$

(3)  $2 \sin \theta = -\sqrt{3}$

答.  $120^\circ, 240^\circ$

答.  $240^\circ, 300^\circ$

(14)  $\sqrt{2} \cos \theta + 1 = 0$

(4)  $2 \sin \theta = -1$

答.  $135^\circ, 225^\circ$

答.  $210^\circ, 330^\circ$

(15)  $\tan \theta - 1 = 0$

(5)  $\sqrt{2} \sin \theta - 1 = 0$

答.  $45^\circ, 225^\circ$

答.  $45^\circ, 135^\circ$

(16)  $\tan \theta - \sqrt{3} = 0$

(6)  $2 \sin \theta + \sqrt{2} = 0$

答.  $60^\circ, 240^\circ$

答.  $225^\circ, 315^\circ$

(17)  $\tan \theta = 0$

(7)  $2 \sin \theta = \sqrt{2}$

答.  $0^\circ, 180^\circ$

答.  $45^\circ, 135^\circ$

(18)  $3 \tan \theta = -\sqrt{3}$

(8)  $2 \cos \theta = -\sqrt{2}$

答.  $150^\circ, 330^\circ$

答.  $135^\circ, 225^\circ$

(19)  $\tan \theta + 1 = 0$

(9)  $2 \cos \theta + \sqrt{3} = 0$

答.  $135^\circ, 315^\circ$

答.  $150^\circ, 210^\circ$

(20)  $\tan \theta + \sqrt{3} = 0$

(10)  $2 \cos \theta - \sqrt{3} = 0$

答.  $120^\circ, 300^\circ$

答.  $30^\circ, 330^\circ$

## 三角方程式5の解答

氏名 \_\_\_\_\_

1.  $0^\circ \leq \theta < 360^\circ$  のとき、次の方程式を解け。

(1)  $2 \sin \theta = -\sqrt{3}$

答.  $240^\circ, 300^\circ$

(2)  $\sqrt{2} \sin \theta + 1 = 0$

答.  $225^\circ, 315^\circ$

(3)  $2 \sin \theta - \sqrt{2} = 0$

答.  $45^\circ, 135^\circ$

(4)  $2 \sin \theta = -\sqrt{2}$

答.  $225^\circ, 315^\circ$

(5)  $2 \sin \theta - 1 = 0$

答.  $30^\circ, 150^\circ$

(6)  $\sin \theta = 0$

答.  $0^\circ, 180^\circ$

(7)  $2 \sin \theta + 1 = 0$

答.  $210^\circ, 330^\circ$

(8)  $\cos \theta = 0$

答.  $90^\circ, 270^\circ$

(9)  $2 \cos \theta = 1$

答.  $60^\circ, 300^\circ$

(10)  $\sqrt{2} \cos \theta = -1$

答.  $135^\circ, 225^\circ$

(11)  $2 \cos \theta = -\sqrt{3}$

答.  $150^\circ, 210^\circ$

(12)  $\cos \theta - 1 = 0$

答.  $0^\circ$

(13)  $2 \cos \theta + \sqrt{2} = 0$

答.  $135^\circ, 225^\circ$

(14)  $\tan \theta = -\sqrt{3}$

答.  $120^\circ, 300^\circ$

(15)  $\tan \theta = 0$

答.  $0^\circ, 180^\circ$

(16)  $\tan \theta = 1$

答.  $45^\circ, 225^\circ$

(17)  $\tan \theta = -1$

答.  $135^\circ, 315^\circ$

(18)  $\tan \theta = \sqrt{3}$

答.  $60^\circ, 240^\circ$

(19)  $3 \tan \theta = -\sqrt{3}$

答.  $150^\circ, 330^\circ$

(20)  $3 \tan \theta = \sqrt{3}$

答.  $30^\circ, 210^\circ$

## 三角方程式 6 の解答

氏名 \_\_\_\_\_

1.  $0^\circ \leq \theta < 360^\circ$  のとき、次の方程式を解け。

(1)  $2 \sin \theta = -1$

答.  $210^\circ, 330^\circ$

(2)  $2 \sin \theta = -\sqrt{3}$

答.  $240^\circ, 300^\circ$

(3)  $2 \sin \theta - 1 = 0$

答.  $30^\circ, 150^\circ$

(4)  $2 \sin \theta = \sqrt{2}$

答.  $45^\circ, 135^\circ$

(5)  $2 \sin \theta - \sqrt{3} = 0$

答.  $60^\circ, 120^\circ$

(6)  $\sin \theta + 1 = 0$

答.  $270^\circ$

(7)  $2 \cos \theta - \sqrt{3} = 0$

答.  $30^\circ, 330^\circ$

(8)  $\sqrt{2} \cos \theta + 1 = 0$

答.  $135^\circ, 225^\circ$

(9)  $\cos \theta - 1 = 0$

答.  $0^\circ$

(10)  $\cos \theta = 0$

答.  $90^\circ, 270^\circ$

(11)  $2 \cos \theta - 1 = 0$

答.  $60^\circ, 300^\circ$

(12)  $2 \cos \theta = \sqrt{2}$

答.  $45^\circ, 315^\circ$

(13)  $2 \cos \theta = -\sqrt{3}$

答.  $150^\circ, 210^\circ$

(14)  $\tan \theta = \sqrt{3}$

答.  $60^\circ, 240^\circ$

(15)  $\tan \theta = -\sqrt{3}$

答.  $120^\circ, 300^\circ$

(16)  $3 \tan \theta = \sqrt{3}$

答.  $30^\circ, 210^\circ$

(17)  $\tan \theta = 1$

答.  $45^\circ, 225^\circ$

(18)  $\tan \theta = 0$

答.  $0^\circ, 180^\circ$

(19)  $\tan \theta = -1$

答.  $135^\circ, 315^\circ$

(20)  $3 \tan \theta = -\sqrt{3}$

答.  $150^\circ, 330^\circ$

## 三角方程式 7 の解答

氏名 \_\_\_\_\_

1.  $0^\circ \leq \theta < 360^\circ$  のとき、次の方程式を解け。

(1)  $\sin \theta = 0$

(11)  $\tan \theta + \sqrt{3} = 0$

答.  $120^\circ, 300^\circ$

答.  $0^\circ, 180^\circ$

(12)  $2 \cos \theta = -1$

答.  $120^\circ, 240^\circ$

答.  $30^\circ, 150^\circ$

(13)  $3 \tan \theta + \sqrt{3} = 0$

答.  $150^\circ, 330^\circ$

答.  $0^\circ, 180^\circ$

(14)  $2 \sin \theta = \sqrt{3}$

答.  $60^\circ, 120^\circ$

答.  $60^\circ, 240^\circ$

(15)  $2 \sin \theta + \sqrt{2} = 0$

答.  $225^\circ, 315^\circ$

答.  $150^\circ, 210^\circ$

(16)  $2 \sin \theta + \sqrt{3} = 0$

答.  $240^\circ, 300^\circ$

答.  $45^\circ, 225^\circ$

(17)  $\sqrt{2} \cos \theta = 1$

答.  $45^\circ, 315^\circ$

答.  $30^\circ, 210^\circ$

(18)  $2 \sin \theta + 1 = 0$

答.  $210^\circ, 330^\circ$

答.  $45^\circ, 135^\circ$

(19)  $2 \sin \theta - \sqrt{2} = 0$

答.  $45^\circ, 135^\circ$

答.  $90^\circ, 270^\circ$

(20)  $2 \cos \theta - \sqrt{3} = 0$

答.  $30^\circ, 330^\circ$

答.  $150^\circ, 330^\circ$

(2)  $2 \sin \theta - 1 = 0$

(4)  $\tan \theta = \sqrt{3}$

(5)  $2 \cos \theta = -\sqrt{3}$

(6)  $\tan \theta = 1$

(7)  $3 \tan \theta - \sqrt{3} = 0$

(8)  $\sqrt{2} \sin \theta - 1 = 0$

(9)  $\cos \theta = 0$

(10)  $\sqrt{3} \tan \theta + 1 = 0$

## 三角方程式8の解答

氏名 \_\_\_\_\_

1.  $0^\circ \leq \theta < 360^\circ$  のとき、次の方程式を解け。

(1)  $2 \sin \theta + \sqrt{2} = 0$

答.  $225^\circ, 315^\circ$

(2)  $\cos \theta = 0$

答.  $90^\circ, 270^\circ$

(3)  $\sin \theta = 0$

答.  $0^\circ, 180^\circ$

(4)  $2 \sin \theta - \sqrt{2} = 0$

答.  $45^\circ, 135^\circ$

(5)  $\tan \theta - 1 = 0$

答.  $45^\circ, 225^\circ$

(6)  $\tan \theta = \sqrt{3}$

答.  $60^\circ, 240^\circ$

(7)  $3 \tan \theta - \sqrt{3} = 0$

答.  $30^\circ, 210^\circ$

(8)  $\tan \theta + 1 = 0$

答.  $135^\circ, 315^\circ$

(9)  $2 \cos \theta = 1$

答.  $60^\circ, 300^\circ$

(10)  $2 \cos \theta - \sqrt{2} = 0$

答.  $45^\circ, 315^\circ$

(11)  $\tan \theta + \sqrt{3} = 0$

答.  $120^\circ, 300^\circ$

(12)  $2 \sin \theta = 1$

答.  $30^\circ, 150^\circ$

(13)  $3 \tan \theta + \sqrt{3} = 0$

答.  $150^\circ, 330^\circ$

(14)  $2 \cos \theta + \sqrt{3} = 0$

答.  $150^\circ, 210^\circ$

(15)  $2 \cos \theta = -\sqrt{2}$

答.  $135^\circ, 225^\circ$

(16)  $2 \cos \theta - \sqrt{3} = 0$

答.  $30^\circ, 330^\circ$

(17)  $\cos \theta = 1$

答.  $0^\circ$

(18)  $2 \sin \theta = -1$

答.  $210^\circ, 330^\circ$

(19)  $\tan \theta = 0$

答.  $0^\circ, 180^\circ$

(20)  $\sin \theta = 1$

答.  $90^\circ$