Degree to Radian.

1 $320^\circ = \frac{320 \times \pi}{180}$

$= \frac{320\pi}{180} = \frac{16\pi}{9}$.

2 $-60^\circ = \frac{-60^\circ \times \pi}{180}$

$= \frac{-60^\circ \pi}{180} = -\frac{1}{3}\pi$

3 $150^\circ = \frac{150^\circ \times \pi}{180} = \frac{150^\circ \pi}{180}$

$= \frac{5}{6}\pi$.

4 $-225^\circ = \frac{-225^\circ \times \pi}{180}$

$= \frac{-225^\circ \pi}{180} = \frac{-45\pi}{36}$

$= \frac{5}{4}\pi$.

Radian to Degree.

5 $\frac{7\pi}{4} = \frac{7\pi}{4} \times \frac{180^\circ}{\pi}$

$7/4 \times 180 = 315^\circ$

$= 315^\circ$

6 $\frac{\pi}{4} = \frac{\pi}{4} \times \frac{180}{\pi}$

$= 180/4 = 45^\circ$

$= 45^\circ$

7 $-\frac{3\pi}{2} = -\frac{3\pi}{2} \times \frac{180}{\pi}$

$= -3/2 \times 180 = -3 \times 90$

$= -270^\circ$

8 $-\frac{5\pi}{3} = -\frac{5\pi}{3} \times \frac{180}{\pi}$

$= -5/3 \times 180$

$= -5 \times 60$

$= -300^\circ$

Degree into Degree, minutes and second.

9 123.4567°

$D = 123.4567 = 123^\circ$

$m = (123.4567 - 123^\circ) \times 60 = 27'$

$S = (123.4567 - 123^\circ) \times 3600 = 24.12''$

$= 123^\circ\ 27'\ 24.12''$

10 -310.7193°

$d = -310.7193^\circ = -310^\circ$

$m = (310.7193^\circ - 310) \times 60 = 43'$

$s = 310.7193^\circ - 310 - \frac{43'}{60} \times 3600 = 9.48''$

$= -310^\circ\ 43'\ 9.48''$

11 35.3196°

$D = 35.3196^\circ = 35^\circ$

$M = (35.3196^\circ - 35^\circ) \times 60 = 19'$

$S = (35.3196 - 35^\circ - 19'/60) \times 3600 = 10.56''$

$= 35^\circ\ 19'\ 10.56''.$

Coterminal Angles

12 $135°$

positive = $135° + 360° = 495°$

$135 + 720 = 855°$

Negative = $135° - 360 = -225°$

$135 - 720 = -585°$

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13 $\frac{2\pi}{3}$

positive = $\frac{2\pi}{3} + \frac{2\pi}{1} = \frac{2\pi + 6\pi}{3} = \frac{8\pi}{3}$

$\frac{2\pi}{3} + \frac{4\pi}{1} = \frac{2\pi + 12\pi}{3} = \frac{14\pi}{3}$

Negative $\frac{2\pi}{3} - \frac{2\pi}{1} = \frac{2\pi - 6\pi}{3} = -\frac{4\pi}{3}$

$\frac{2\pi}{3} - \frac{4\pi}{1} = \frac{2\pi - 12\pi}{3} = -\frac{10\pi}{3}$

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14 $-190°$

$-190 + 360 = 170°$ positive

$-190 + 720 = 530°$

$-190 - 360 = -550°$

$-190 - 720 = -910°$

Angle into Degree:

15 $65° 17' 54''$

$= 65 * \frac{17'}{60} + \frac{54''}{3600}$

$65.2983°$

16 $135° 51' 33''$

$135° + \frac{51'}{60} + \frac{31''}{3600}$

$= 135.8586°$

17 $78° 44' 12''$

$78° + \frac{44'}{60} + \frac{12''}{3600}$

$= 78.7367°$