F.TF.A.1: Radian Measure 1

1 Express 15º in radian measure.

2 Express 45º in radian measure.

3 Express 54º in radian measure.

4 Express 72° in radian measure.

5 Express 75° in radian measure.

6 Express 105º in radian measure.

7 Express 150º in radian measure.

8 Express 160° in radian measure.

9 Express 198º in radian measure.

10 Express 220º in radian measure.

11 Express 225º in radian measure.

12 What is 235°, expressed in radian measure?
1) 235π
2) $\frac{\pi}{235}$
3) $\frac{36\pi}{47}$
4) $\frac{47\pi}{36}$

13 Express 240º in radian measure.

14 Express 260º in radian measure.

15 Express 300º in radian measure.

16 Express 315º in radian measure.

17 Express 330º in radian measure.

18 Express 405º in radian measure.

19 Express 450º in radian measure.

20 What is 510° expressed in radian measure?
1) 2.83
2) $\frac{5\pi}{6}$
3) $\frac{17\pi}{6}$
4) $\frac{17\pi}{12}$

21 What is the radian measure of an angle whose measure is –420°?
1) $-\frac{7\pi}{3}$
2) $-\frac{7\pi}{6}$
3) $\frac{7\pi}{6}$
4) $\frac{7\pi}{3}$

22 To the *nearest thousandth*, what is 23°50', in radian measure?
1) 0.416
2) 0.415
3) 0.410
4) 0.409

23 Find, to the *nearest tenth*, the radian measure of 216º.

24 Express –130° in radian measure, to the *nearest hundredth*.

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Answer Section

1 ANS:
$\frac{\pi}{12}$

REF: 068804siii

2 ANS:
$\frac{\pi}{4}$

REF: 060207siii

3 ANS:
$\frac{3\pi}{10}$

REF: 069407siii

4 ANS:
$\frac{2\pi}{5}$

REF: 068001siii

5 ANS:
$\frac{5\pi}{12}$

REF: 019908siii

6 ANS:
$\frac{7\pi}{12}$

REF: 068601siii

7 ANS:
$\frac{5\pi}{6}$

REF: 088503siii

8 ANS:
$\frac{8\pi}{9}$

REF: 089703siii

9 ANS:
$\frac{11\pi}{10}$

REF: 080103siii

10 ANS:
$\frac{11\pi}{9}$

REF: 089904siii
11 ANS:
$\frac{5\pi}{4}$

REF: 019402siii
12 ANS: 4
$235 \cdot \frac{\pi}{180} = \frac{235\pi}{180} = \frac{47\pi}{36}$

REF: 080704b
13 ANS:
$\frac{4\pi}{3}$

REF: 010304siii
14 ANS:
$\frac{13\pi}{9}$

REF: 018401siii
15 ANS:
$\frac{5\pi}{3}$

REF: 060101siii
16 ANS:
$\frac{7\pi}{4}$

REF: 089505siii
17 ANS:
$\frac{11\pi}{6}$

REF: 068405siii
18 ANS:
$\frac{9\pi}{4}$

REF: 069906siii

19 ANS:
$\frac{5\pi}{2}$

REF: 019502siii

20 ANS: 3
$510\left(\frac{\pi}{180}\right) = \frac{17\pi}{6}$

REF: 011701a2

21 ANS: 1
$-420\left(\frac{\pi}{180}\right) = -\frac{7\pi}{3}$

REF: 081002a2

22 ANS: 1
$23\frac{5}{6}\left(\frac{\pi}{180}\right) \approx 0.416$

REF: 061618a2

23 ANS:
$216\left(\frac{\pi}{180}\right) \approx 3.8$

REF: 061232a2

24 ANS:
$-130 \cdot \frac{\pi}{180} \approx -2.27$

REF: 011632a2