1 a
$$720^\circ=rac{720 imes\pi}{180} = 4\pi$$

$$\begin{array}{ll} \textbf{b} & 540^\circ = \frac{540 \times \pi}{180} \\ & = 3\pi \end{array}$$

c
$$-450^\circ = -rac{450 imes\pi}{180} = -rac{5\pi}{2}$$

$$egin{aligned} extbf{d} & 15^\circ = rac{15 imes \pi}{180} \ & = rac{\pi}{12} \end{aligned}$$

$$\begin{array}{ll} \mathbf{e} & -10^\circ = \frac{-10 \times \pi}{180} \\ & = -\frac{\pi}{18} \end{array}$$

$$egin{aligned} extbf{f} & -315^{\circ} = rac{315 imes \pi}{180} \ & = -rac{7\pi}{4} \end{aligned}$$

2 a
$$\dfrac{5\pi}{4}=\dfrac{5\pi imes180}{4 imes\pi} = 225^\circ$$

$$egin{aligned} \mathbf{b} & -rac{2\pi}{3} = rac{2\pi imes 180}{3 imes \pi} \ & = -120^{\circ} \end{aligned}$$

$$egin{aligned} \mathbf{c} & rac{7\pi}{12} = rac{7\pi imes 180}{12 imes \pi} \ &= 105^{\circ} \end{aligned}$$

$$\begin{array}{ll} \mathbf{d} & -\frac{11\pi}{6} = \frac{11\pi \times 180}{6 \times \pi} \\ & = -330^{\circ} \end{array}$$

$$egin{aligned} \mathbf{e} & rac{13\pi}{9} = rac{13\pi imes 180}{9 imes \pi} \ &= 260^{\circ} \end{aligned}$$

$$\mathsf{f} \quad -rac{11\pi}{12} = rac{11\pi imes 180}{12 imes \pi} \ = -165^\circ$$

3 a
$$\cos\!\left(\frac{3\pi}{2}\right)=0$$

$$\mathbf{b} \quad \sin\!\left(-\frac{\pi}{2}\right) = -1$$

c
$$\cos(6\pi)=1$$

$$\mathsf{d} \quad \sin\!\left(\frac{15\pi}{2}\right) = -1$$

4 a
$$\sin(270^\circ)=-1$$

 $\textbf{b} \quad \cos(-540^\circ) = -1$

 $\sin(450^\circ)=1$

 $\text{d} \quad \cos(720^\circ) = 0$