

6.1) Secant, cosecant and cotangent

Worked example

Find the exact values of:

$$\operatorname{cosec} \frac{\pi}{2}$$

$$\operatorname{cosec} \frac{\pi}{3}$$

$$\operatorname{cosec} \frac{\pi}{4}$$

$$\operatorname{cosec} 150^\circ$$

$$\operatorname{cosec} (-210^\circ)$$

$$\operatorname{cosec} (0)$$

Your turn

Find the exact values of:

$$\operatorname{cosec} \frac{\pi}{6}$$

2

$$\operatorname{cosec}(-150^\circ)$$

-2

Worked example

Find the exact values of:

$$\sec \frac{\pi}{2}$$

$$\sec \frac{\pi}{3}$$

$$\sec \frac{\pi}{4}$$

$$\sec 150^\circ$$

$$\sec (-210^\circ)$$

$$\sec (0)$$

Your turn

Find the exact values of:

$$\sec \frac{\pi}{6}$$

$$\frac{2\sqrt{3}}{3}$$

$$\sec(-150^\circ)$$

$$-\frac{2\sqrt{3}}{3}$$

Worked example

Find the exact values of:

$$\cot \frac{\pi}{2}$$

$$\cot \frac{\pi}{3}$$

$$\cot \frac{\pi}{4}$$

$$\cot 150^\circ$$

$$\cot (-210^\circ)$$

$$\cot (0)$$

Your turn

Find the exact values of:

$$\cot \frac{\pi}{6}$$

$$\sqrt{3}$$

$$\cot(-150^\circ)$$

$$\sqrt{3}$$