

Refer to the $30^\circ - 60^\circ - 90^\circ$ triangle. The side opposite 30° has length 1 and the hypotenuse has length 2, so:

$$\sin 30^\circ = \frac{o}{h} = \frac{1}{2}$$

Cosecant is the reciprocal of sine, so:

$$\csc 30^\circ = \frac{1}{\frac{1}{2}} = 2$$