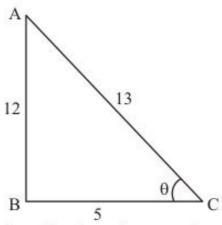


Trigonometric Identities Ex 6.2 Q5

Answer:

Given: 
$$\tan \theta = \frac{12}{5}$$

We have to find the value of the expression  $\frac{1+\sin\theta}{1-\sin\theta}$ .



From the above figure, we have

$$AC = \sqrt{AB^2 + BC^2}$$
$$= \sqrt{12^2 + 5^2}$$
$$= 13$$
$$\Rightarrow \sin \theta = \frac{12}{13}$$

Therefore,

$$\frac{1+\sin\theta}{1-\sin\theta} = \frac{1+\frac{12}{13}}{1-\frac{12}{13}} = 25$$

Hence, the value of the given expression is 25.