

Given: y varies directly with x , and $y = 144$ when $x = 8$,

Constant of Variation- The ratio between two variables in a direct variation.

Therefore, $K = y/x$

$K = y/x$ where

K = Constant of variation

y = one variable

x = another variable

Therefore,

$$K = \frac{144}{8} = 18$$

Therefore the constant of variation is 18.