Conditions

Perform the indicated operation.

3y^2+12/3y^2-15y divided by y^4-16/y^2-3y-10

the values that would be excluded from the domain are?

Solution

$$\frac{\dfrac{3y^2+12}{3y^2-15y}}{\dfrac{y^4-16}{y^2-3y-10}} = \frac{3y^2+12}{3y^2-15y} \cdot \frac{y^2-3y-10}{y^4-16}$$

The excluded values will be all those values, for which each denominator in this fraction could be equal to 0.

In another words, we must find those y, when:

$$3y^2-15y=0, y=0, y=5$$

$$y^4-16=0, y=2, y=-2$$

Answer: The excluded values for y are 0, 5, 2 and -2