

The equation of the line passing through the points A and B. $A(5, 1/2), B(-1, 3/4)$.

Solution:

First find the slope

$$k = \frac{y_2 - y_1}{x_2 - x_1}$$
$$k = \frac{\frac{3}{4} - \frac{1}{2}}{-1 - 5} = \frac{\frac{3-2}{4}}{-6} = \frac{\frac{1}{4}}{-6} = -\frac{1}{24}$$

So slope of the line is equal $-\frac{1}{24}$

Then use $y = kx + b$, and substitute one set of points into the equation:

$$\frac{1}{2} = -\frac{1}{24} * 5 + b$$

$$b = \frac{1}{2} + \frac{5}{24} = \frac{17}{24}$$

The equation is $y = -\frac{1}{24}x + \frac{17}{24}$

Answer: $y = -\frac{1}{24}x + \frac{17}{24}$