

April 7<sup>th</sup>

The line  $y = \frac{1}{5}x + 3$  is reflected with mirror line  $y = x$

One way to consider this is as functions:

$$\text{If } f(x) = \frac{1}{5}x + 3 \quad (\text{divide by 5, and add 3})$$

Then its inverse function is

$$f^{-1}(x) = 5(x - 3) \quad (\text{take 3, and multiply by 5})$$

Therefore the reflected line is

$$\mathbf{y = 5x - 15}$$