Solution

Here we are to manipulate the question to make $\frac{x}{y}$ the subject that's all.

$$\frac{5y-x}{8y+3x} = \frac{1}{5}$$

Cross multiple:

$$\frac{5y-x}{8y+3x} \diagup \frac{1}{5}$$

$$5(5y - x) = 1(8y + 3X)$$

Expand the bracket:

$$25Y - 5X = 8Y + 3X$$

Group like terms and add:

$$25Y- 8Y = 3X + 5X$$

$$17Y = 8X$$

Divide through by 8.

$$\frac{17Y}{8} = \frac{8X}{8}$$

$$\frac{17Y}{8} = X$$

Divide through by Y to make X the numerator

$$\frac{17Y}{8Y} = \frac{X}{Y}$$

$$\frac{X}{Y} = \frac{17}{8}$$

$$\therefore \frac{X}{Y} = 2.125 \approx 2.13 \text{ (2 d.p)}$$