Exercise 1A

Question 5:

Let x = $x = \frac{2}{5}$ and $y = \frac{3}{4}$

Then, x < y because $\frac{2}{5} < \frac{3}{4}$

Or we can say that, $\frac{2 \times 4}{5 \times 4} = \frac{3 \times 5}{4 \times 5}$

That is, $\frac{8}{20} < \frac{15}{20}$.

We know that, $8 < 9 < 10 < 11 < 12 < 13 < 14 < 15$.

Therefore, we have,

$$\frac{8}{20} < \frac{9}{20} < \frac{10}{20} < \frac{11}{20} < \frac{12}{20} < \frac{13}{20} < \frac{14}{20} < \frac{15}{20}$$

Thus, 5 rational numbers between, $\frac{8}{20}$ and $\frac{15}{20}$ are:

$$\frac{9}{20}, \frac{10}{20}, \frac{11}{20}, \frac{12}{20} \text{ and } \frac{13}{20}$$

Question 6:

Let x = 3 and y = 4

Then, x < y, because 3 < 4

We can say that, $\frac{21}{7} < \frac{28}{7}$.

We know that, $21 < 22 < 23 < 24 < 25 < 26 < 27 < 28$.

Therefore, we have, $\frac{21}{7} < \frac{22}{7} < \frac{23}{7} < \frac{24}{7} < \frac{25}{7} < \frac{26}{7} < \frac{27}{7} < \frac{28}{7}$

Therefore, 6 rational numbers between 3 and 4 are:

$$\frac{22}{7}, \frac{23}{7}, \frac{24}{7}, \frac{25}{7}, \frac{26}{7}, \frac{27}{7}$$

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