Exercise 5D

We convert each one of the fractions whose denominator is not equal to 42 into an equivalent fraction with denominator 42.

Thus, we have:

$\frac{5}{7} = \frac{5\times6}{7\times6} = \frac{30}{42}$; $\frac{9}{14} = \frac{9\times3}{14\times3} = \frac{27}{42}$; $\frac{17}{21} = \frac{17\times2}{21\times2} = \frac{34}{42}$

Clearly, $\frac{34}{42} > \frac{31}{42} > \frac{30}{42} > \frac{27}{42}$

$\therefore \frac{17}{21} > \frac{31}{42} > \frac{5}{7} > \frac{9}{14}$

Hence, the given fractions can be arranged in the descending order as follows:

$\frac{17}{21}, \frac{31}{42}, \frac{5}{7}, \frac{9}{14}$

Q26

Answer :

The given fractions are $\frac{1}{12}, \frac{1}{23}, \frac{1}{7}, \frac{1}{9}, \frac{1}{17}$ and $\frac{1}{50}$.

As the fractions have the same numerator, we can follow the rule for the comparison of such fractions.

This rule states that when two fractions have the same numerator, the fraction having the smaller denominator is the greater one.

Clearly, $\frac{1}{7} > \frac{1}{9} > \frac{1}{12} > \frac{1}{17} > \frac{1}{23} > \frac{1}{50}$

Hence, the given fractions can be arranged in the descending order as follows:

$\frac{1}{7}, \frac{1}{9}, \frac{1}{12}, \frac{1}{17}, \frac{1}{23}, \frac{1}{50}$

Q27

Answer :

The given fractions are $\frac{3}{7}, \frac{3}{11}, \frac{3}{5}, \frac{3}{13}, \frac{3}{4}$ and $\frac{3}{17}$.

As the fractions have the same numerator, so we can follow the rule for the comparison of such fractions.

This rule states that when two fractions have the same numerator, the fraction having the smaller denominator is the greater one.

Clearly, $\frac{3}{4} > \frac{3}{5} > \frac{3}{7} > \frac{3}{11} > \frac{3}{13} > \frac{3}{17}$

Hence, the given fractions can be arranged in the descending order as follows:

$\frac{3}{4}, \frac{3}{5}, \frac{3}{7}, \frac{3}{11}, \frac{3}{13}, \frac{3}{17}$

Q28

Answer :

Lalita read 30 pages of a book having 100 pages.

Sarita read $\frac{2}{5}$ of the same book.

$\frac{2}{5}$ of 100 pages = $\frac{2}{5} \times 100 = \frac{200}{5} = 40$ pages

Hence, Sarita read more pages than Lalita as 40 is greater than 30.

Q29

Answer :

To know who exercised for a longer time, we have to compare $\frac{2}{3}$ hour with $\frac{3}{4}$ hour.

On cross multiplying:

4 × 2 = 8 and 3 × 3 = 9

Clearly, 8 < 9

$\therefore \frac{2}{3}$ hour $< \frac{3}{4}$ hour

Hence, Rohit exercised for a longer time.

Q30

Answer :

Fraction of students who passed in VI A = $\frac{20}{25} = \frac{20:5}{25:5} = \frac{4}{5}$

Fraction of students who passed in VI B = $\frac{24}{30} = \frac{24:6}{30:6} = \frac{4}{5}$

In both the sections, the fraction of students who passed is the same, so both the sections have the same result.

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