MONTH : SEPTEMBER

SESSION : 5

CLASS : V

SUBJECT : MATHEMATICS

CHAPTER NUMBER: 9

CHAPTER NAME : FRACTION

SUB-TOPIC : DIVISION OF FRACTIONS

EXERCISE 9 D

LEARNING OBJECTIVE :

Enable the students

- **To divide a fraction by another fraction.**
- **To reduce to their lowest term**

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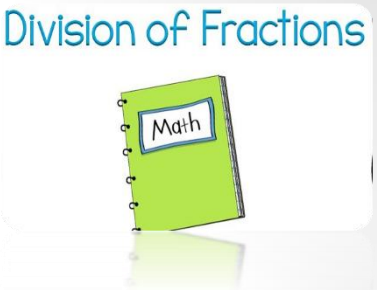
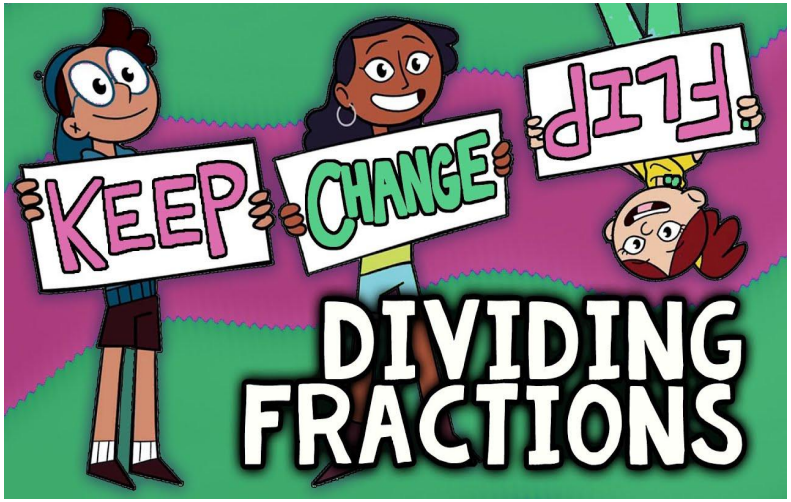
Division of Fractions





EXAMPLE 1

KEEP CHANGE FLIP

$$\frac{2}{9} \div \frac{1}{3}$$

$$\frac{2}{\cancel{9}_{3}} \times \frac{\cancel{3}}{1} = \frac{2}{3}$$

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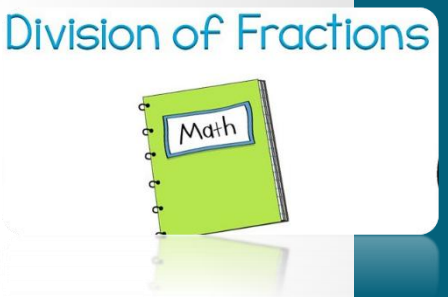
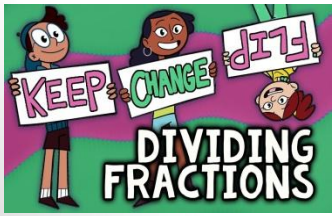


Example: 1

$$\frac{1}{3} \div 2$$

$$\frac{1}{3} \times \frac{1}{2} = \frac{1 \times 1}{3 \times 2} = \frac{1}{6}$$

keep change Flip



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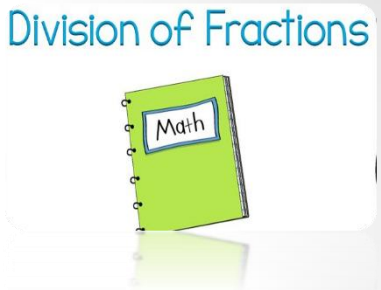

Example: 2

$$\frac{11}{15} \div \frac{2}{3}$$

$$= \frac{11 \times \cancel{3}}{\cancel{15}_{5} \times 2} = \frac{11}{10} = 1\frac{1}{10}$$

Example: 3

$$2\frac{19}{26} \div 16\frac{5}{13} = \frac{71}{26} \div \frac{213}{13}$$

$$= \frac{\cancel{71} \times \cancel{13}}{\cancel{26}_{2} \times \cancel{213}^{3}} = \frac{1}{6}$$

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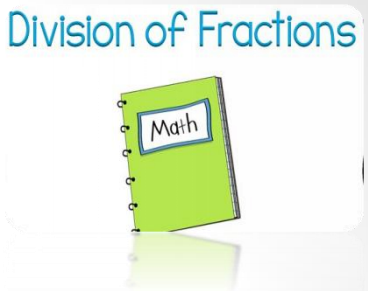
Division of Fractions

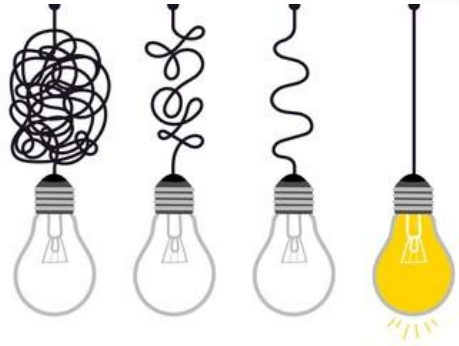


Example: 4

Write the quotient in its simplest form

$$\frac{\frac{6}{7}}{\frac{18}{35}}$$

Reciprocal of $\frac{18}{35} = \frac{35}{18}$



$$= \frac{\cancel{6}}{\cancel{7}} \times \frac{\cancel{35}^{5}}{\cancel{18}_{3}}$$

$$= \frac{5}{3} = 1\frac{2}{3}$$

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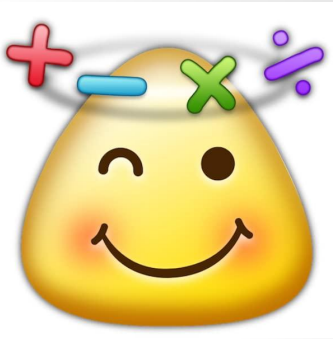
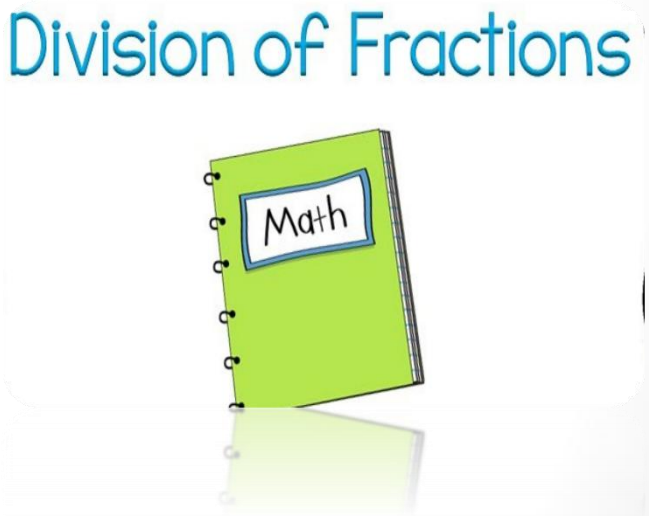
EXERCISE : 9 D



1. Divide:

a. $\frac{35}{44} \div 70$

$= \frac{\cancel{35} \times 1}{44 \times \cancel{70}_{2}} = \frac{1}{88}$



b. $\frac{12}{13} \div 15$

$= \frac{\cancel{12}^{4} \times 1}{13 \times \cancel{15}_{5}} = \frac{4}{65}$

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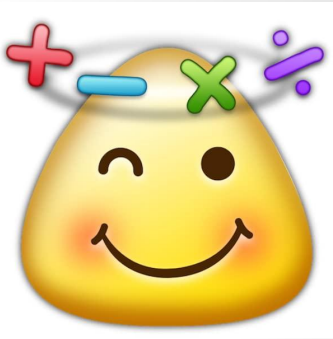
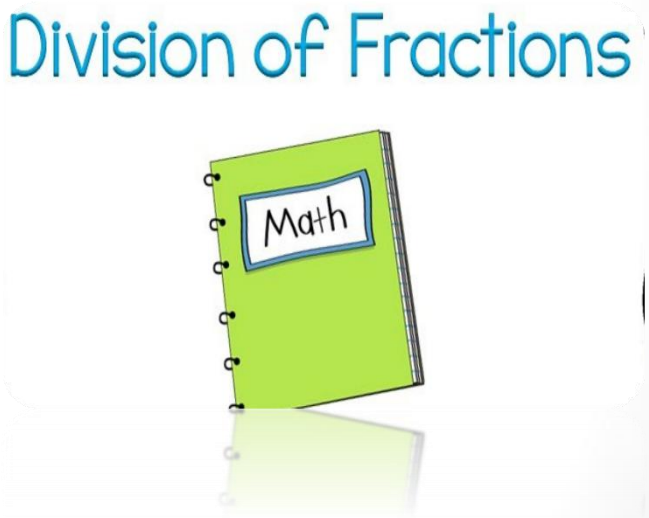
EXERCISE : 9 D



1. Divide:

c. $\frac{8}{13} \div \frac{2}{13}$

$= \frac{\cancel{8}^{4} \times \cancel{13}}{\cancel{13} \times \cancel{2}} = 4$



d. $\frac{5}{12} \div \frac{10}{21}$

$= \frac{\cancel{5} \times \cancel{21}^{7}}{\cancel{12}_{4} \times \cancel{10}_{2}} = \frac{7}{8}$

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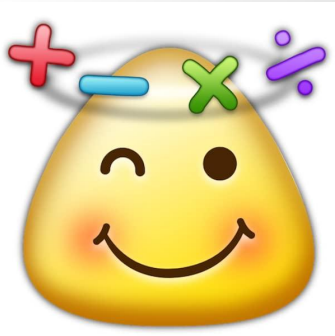
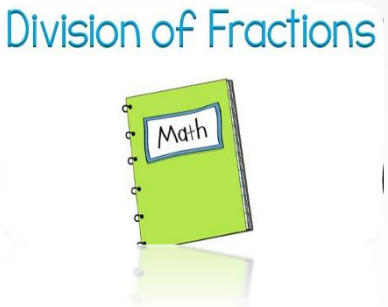


1. Divide:



j. $\frac{3}{4} \div \frac{1}{2} \div \frac{6}{7}$

$$= \frac{\cancel{3}^{\,1} \times \cancel{2}^{\,1} \times 7}{\cancel{4}^{\,2} \times 1 \times \cancel{6}^{\,2}} = \frac{7}{4} = 1\frac{3}{4}$$

k. $2\frac{1}{4} \div 1\frac{3}{10} \div \frac{3}{13} = \frac{9}{4} \div \frac{13}{10} \div \frac{3}{13}$

$$= \frac{\cancel{9}^{\,3} \times \cancel{10}^{\,5} \times \cancel{13}^{\,1}}{\cancel{4}^{\,2} \times \cancel{13}^{\,1} \times \cancel{3}^{\,1}} = \frac{15}{2} = 7\frac{1}{2}$$

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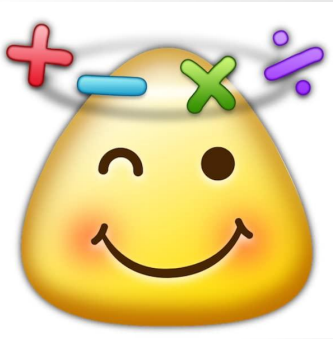
EXERCISE : 9 D

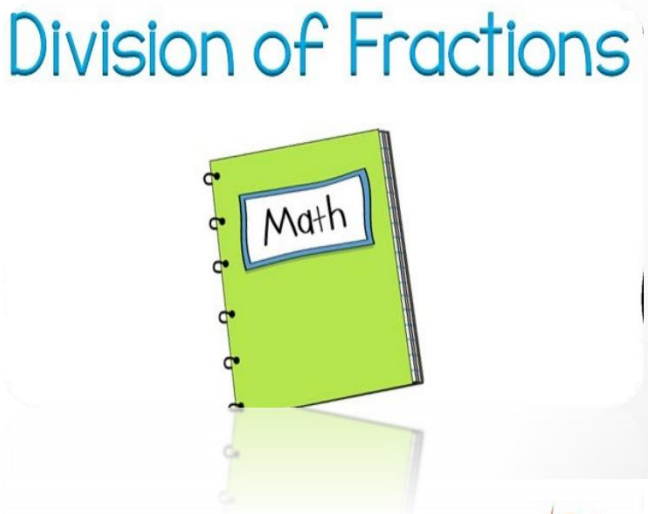


2. Find the quotient in its simplest form

a. $\dfrac{\frac{3}{5}}{\frac{7}{10}}$

$= \dfrac{3}{\cancel{5}_{1}} \times \dfrac{\cancel{10}^{2}}{7} = \dfrac{6}{7}$

Reciprocal of $\dfrac{7}{10} = \dfrac{10}{7}$



b. $\dfrac{\frac{5}{16}}{\frac{9}{14}}$

$= \dfrac{5}{\cancel{16}_{8}} \times \dfrac{\cancel{14}^{7}}{9} = \dfrac{35}{72}$

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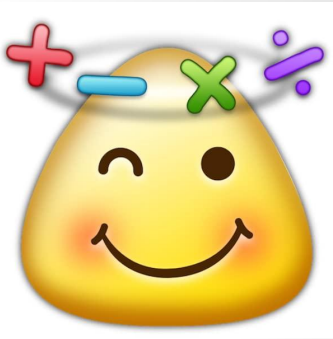
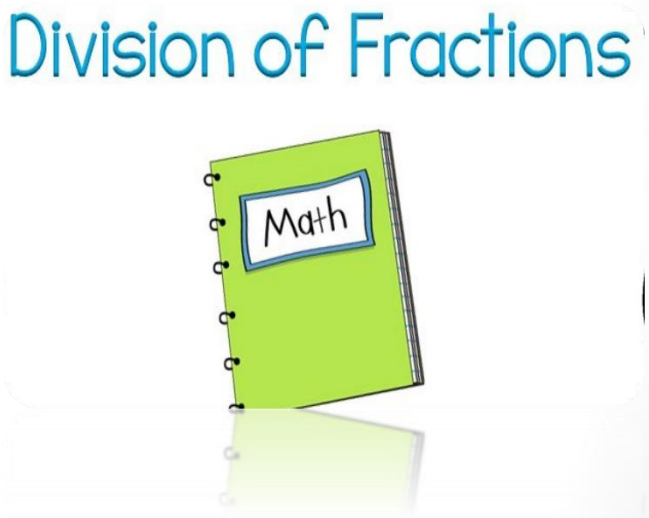
EXERCISE : 9 D



2. Find the quotient in its simplest form

c $\dfrac{\frac{8}{15}}{\frac{35}{36}}$

$= \dfrac{8}{\cancel{15}_{5}} \times \dfrac{\cancel{36}^{12}}{35} = \dfrac{96}{175}$



d $\dfrac{\frac{12}{17}}{5}$

$= \dfrac{12}{17} \times \dfrac{1}{5} = \dfrac{12}{85}$

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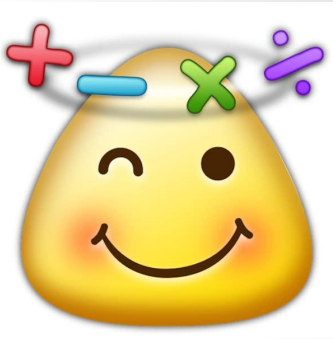
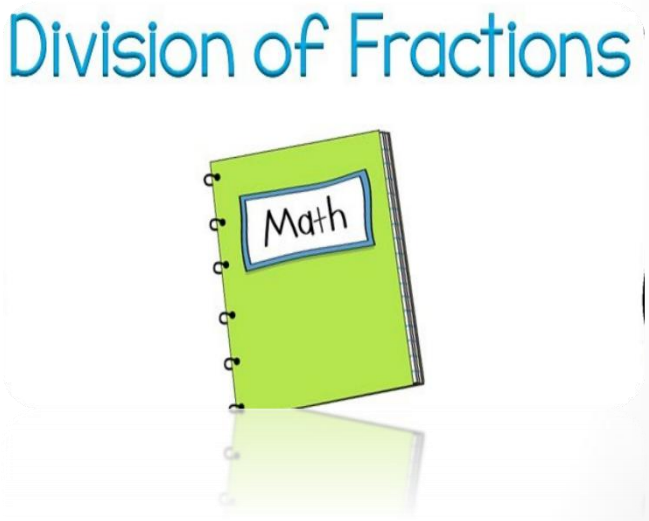
EXERCISE : 9 D



2. Find the quotient in its simplest form

j $\dfrac{10}{1\frac{2}{3}} = \dfrac{10}{1} \div \dfrac{5}{3}$

$= \dfrac{\overset{2}{\cancel{10}}}{1} \times \dfrac{3}{\cancel{5}} = 6$



k $\dfrac{24}{3\frac{1}{3}} = \dfrac{24}{1} \div \dfrac{10}{3}$

$= \dfrac{\overset{12}{\cancel{24}}}{1} \times \dfrac{3}{\underset{5}{\cancel{10}}} = \dfrac{36}{5} = 7\dfrac{1}{5}$

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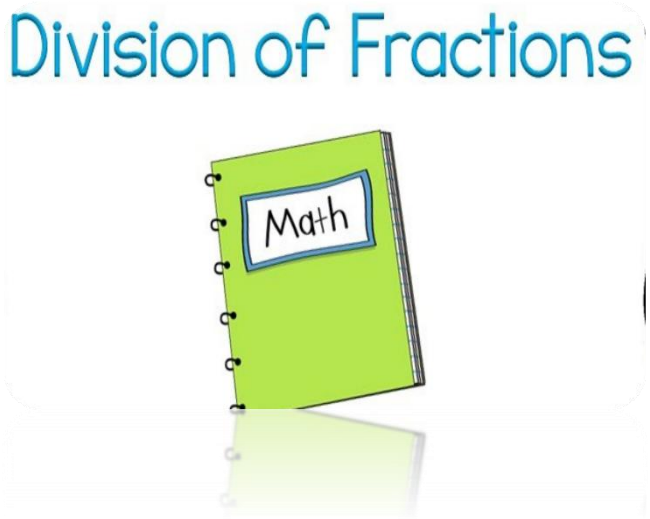
- **Complete exercise 9 D Q.No.1 and 2 in the notebook.**



Students are able to divide a fraction by another fraction and reduce the same to its lowest term.

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THANKING YOU

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