



4th
Basic

5th
Advanced

Helping With Math

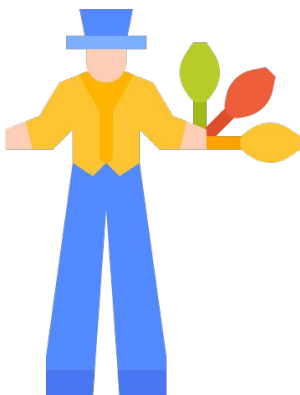
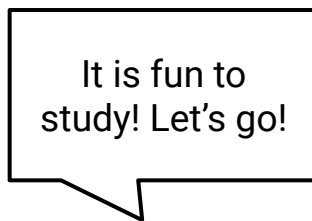
USA
GRADES

Addition of Unlike Fractions

*Suitable for students
aged 8-10*



This pack is suitable for learners aged 8-10 years old or 4th and 5th graders (USA). The content covers fact files and relevant basic and advanced activities involving addition of unlike fractions.



- Fractions are numbers that represent equal parts of a collection or a whole.
- There are two parts of fractions which are the numerator and the denominator.
- Two types of fractions are called like fractions and unlike fractions.
- Like fractions are fractions sharing the same denominator, while unlike fractions have different denominators.



STEPS IN ADDING UNLIKE FRACTIONS

Step 1:

Identify the Least Common Denominator (LCD) of the addends.

Example:

$$\frac{1}{3} + \frac{1}{5}$$

$$\text{LCD} = 15$$

Step 2:

Change the fractions to make their denominators the same with the LCD.

Example:

$$\frac{1}{3} \times \frac{5}{5} = \frac{5}{15}$$

$$\frac{1}{5} \times \frac{3}{3} = \frac{3}{15}$$

$$\frac{5}{15} + \frac{3}{15}$$

Step 3:

Now that the fractions have the same denominator, you may now proceed to adding them. Simplify the fractions as necessary.

Example:

$$\frac{5}{15} + \frac{3}{15} = \frac{8}{15}$$

HOW TO FIND THE LCD?

List down all the multiples of the denominator and find the least common multiple (LCM).

Example: ($3 \times 5 = 15$ | $5 \times 3 = 15$)

$$3 = 3, 6, 9, 12, \mathbf{15}, 18, 21, 24, 27, 30$$

$$5 = 5, 10, \mathbf{15}, 20, 25, 30, 35, 40, 45, 50$$

Multiply the whole fraction with the multiplier that will make the denominator the same form as the LCM.



LET'S PRACTICE!



$$\frac{1}{2} + \frac{1}{6} = \underline{\hspace{2cm}}$$

$$\frac{1}{3} + \frac{1}{4} = \underline{\hspace{2cm}}$$



TABLE OF ACTIVITIES

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BE A VOLUNTEER

G4
Basic

There is a carnival show on going and they need some volunteers. Join the act and find the LCM of the given numbers by listing down their first 10 multiples.

4 =

3 =



5 =

2 =

6 =

5 =



5 =

8 =



COLOR THE BALLOONS

G4
Basic

Help the boy organize the balloons by shading the matching balloons with the same color. Add the fractions to find its answer inside the other balloons.

$$\frac{4}{7} + \frac{1}{5}$$

$$\frac{25}{28}$$

$$\frac{17}{12}$$

$$\frac{1}{8} + \frac{2}{5}$$

$$\frac{17}{30}$$

$$\frac{27}{35}$$

$$\frac{3}{4} + \frac{1}{7}$$

$$\frac{2}{3} + \frac{3}{4}$$

$$\frac{21}{40}$$

$$\frac{1}{6} + \frac{2}{5}$$



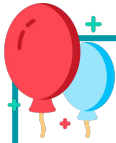
Please help me organize the balloons that I am selling.



CHOOSE YOUR ACTIVITY

G4
Basic

There are many activities to choose from the carnival. To help you choose, answer the following problems and choose your answers from the box below. Don't forget to show the solutions.



$$50/21$$

$$37/21$$

$$41/15$$

$$17/20$$

$$51/20$$



What is the sum when $4/3$ is added to another fraction which is $3/7$?



What is the total of the two fractions, $3/5$ and $2/8$?

This is the total when $5/7$ is added to $5/3$.



This is the sum of $7/5$ and $4/3$.

Find the sum of the two fractions, $4/5$ and $7/4$.



JOIN THE CARNIVAL

G4
Basic

Apply as a part of the carnival. Showcase your talent and answer the following statements. Write TRUE if the statement is correct and FALSE if it is not.

1. You have $\frac{4}{5}$ remaining popcorn while your brother has $\frac{3}{7}$ in the bag. The total remaining popcorns are $\frac{43}{35}$.

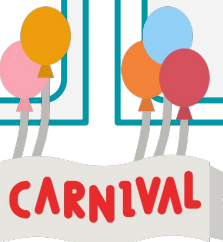
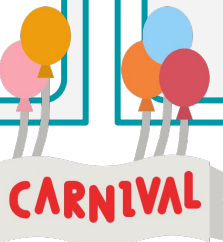
4. There are already $\frac{2}{5}$ of the audiences seated. $\frac{3}{4}$ of the audiences are still coming. The total number are $\frac{25}{20}$.

2. $\frac{4}{7}$ of the hotdogs are for kids, $\frac{6}{8}$ are for adults. The total number of hotdogs are $\frac{40}{28}$.

5. $\frac{3}{6}$ hotdogs and $\frac{2}{5}$ of corndogs were sold. The total number of snacks sold were $\frac{27}{30}$.

3. $\frac{4}{3}$ of the balloons are small and $\frac{5}{6}$ are big. The total number of balloons are $\frac{13}{3}$.

6. The candies that you bought are composed of $\frac{2}{3}$ red candies and $\frac{4}{7}$ blue ones. The total number of candies are $\frac{26}{21}$.



CARNIVAL



CARNIVAL DAY

G4
Basic

You are about to go to the carnival with your parents. But before this, you need to finish your homework first. Answer the statements below by adding the fractions.

1. What is the sum of $\frac{4}{5}$ and $\frac{3}{7}$?

5. This is the sum of $\frac{6}{8}$ and $\frac{5}{6}$.

2. What is the total when $\frac{3}{8}$ is added to $\frac{4}{7}$?

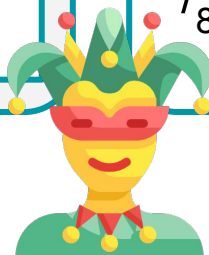
6. What is the sum of $\frac{6}{7}$ and $\frac{2}{4}$?

3. This is the sum of $\frac{5}{3}$ and $\frac{4}{7}$.

7. What is the total when $\frac{3}{5}$ is added to $\frac{5}{4}$?

4. What is the sum of $\frac{3}{7}$ and $\frac{3}{8}$?

8. This is the sum of $\frac{2}{8}$ and $\frac{2}{6}$.



GET READY!

G5
Advanced

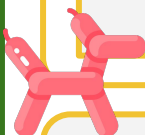
In preparation for your visit to the carnival, you have to answer the questions below first. Read the short paragraph before answering.

The Matematika Carnival is very famous to people across all countries. Many people are waiting for this carnival to open up every Summer. The carnival is also very famous for the snacks that they serve. Adrian and his brother are excited for the snacks. They finished $\frac{2}{4}$ popcorn, $\frac{3}{5}$ corndog, and $\frac{3}{4}$ pizza. They also finished $\frac{1}{6}$ smoothie, $\frac{2}{6}$ soda and $\frac{3}{4}$ orange juice. After eating lots of snacks, they decided to watch the Magic Show.



How many popcorn and corndog did Adrian and his brother finish?

How much smoothie and orange juice did they drink?



What is the total of the pizza and soda?

What is the total of the popcorn, corndog and pizza that they ate?

What is the total of smoothie, soda, and orange juice did they drink?



BE A PERFORMER

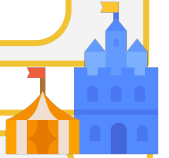
G5
Advanced

We need more performers! Please join us today by answering the equations below. Don't forget to simplify your answers.

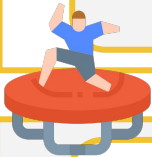
$$\frac{1}{5} + \frac{5}{10} + \frac{3}{5} = \square$$



$$\frac{3}{7} + \frac{5}{7} + \frac{2}{3} = \square$$



$$\frac{1}{12} + \frac{4}{6} + \frac{2}{6} = \square$$



$$\frac{1}{10} + \frac{2}{4} + \frac{3}{4} = \square$$



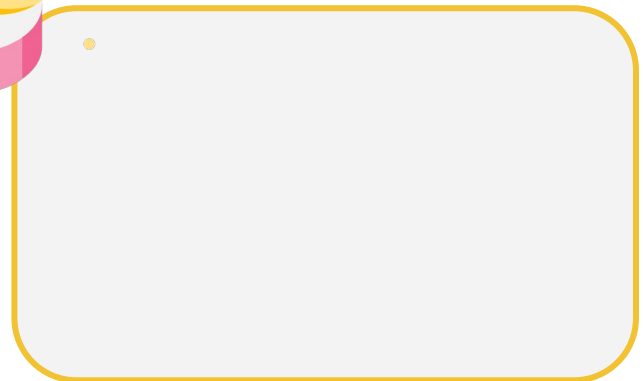
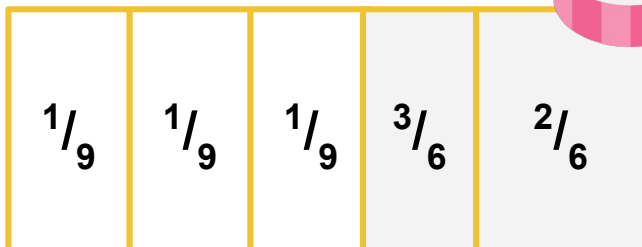
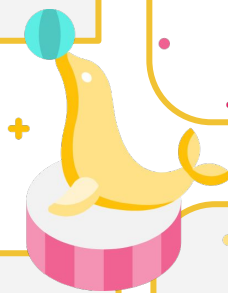
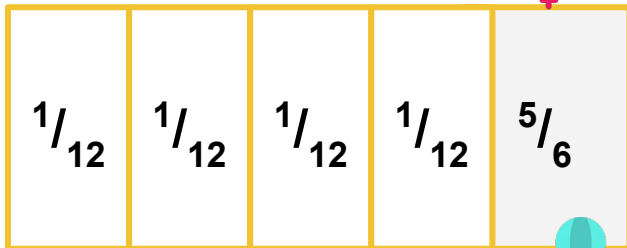
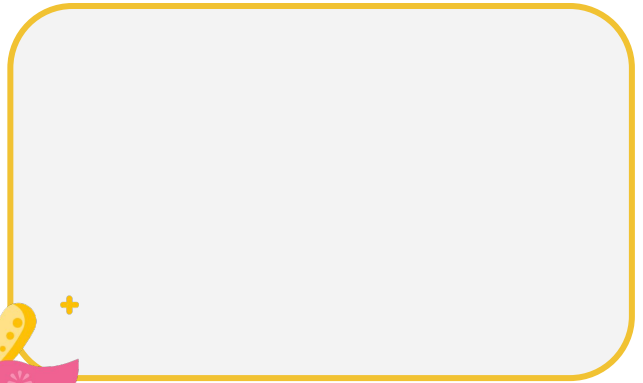
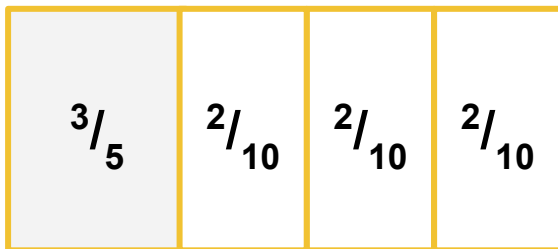
$$\frac{4}{3} + \frac{5}{3} + \frac{1}{9} = \square$$



THE MAP

G5
Advanced

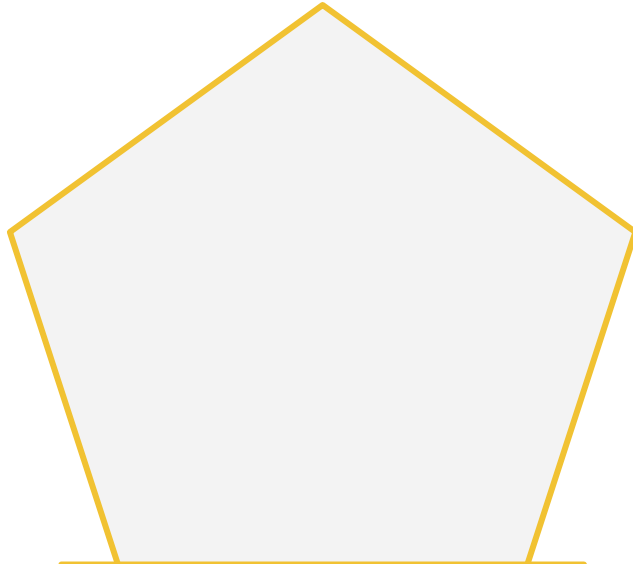
Find a map of the carnival to prevent getting lost. Write an equation from the following fraction strips and solve it.



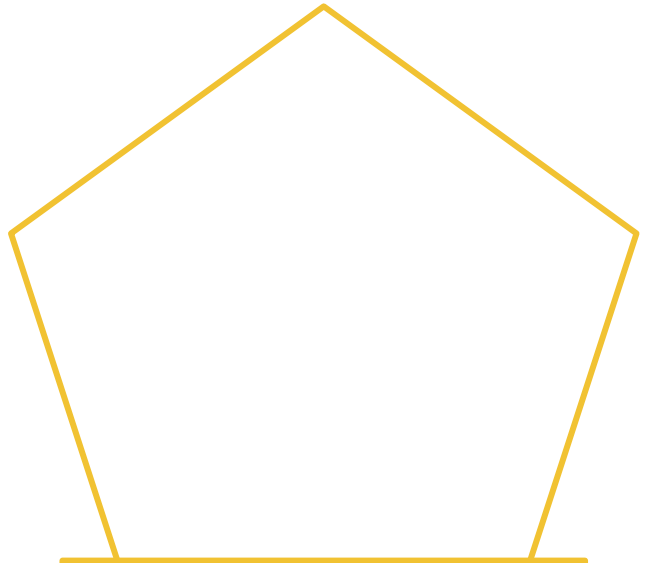
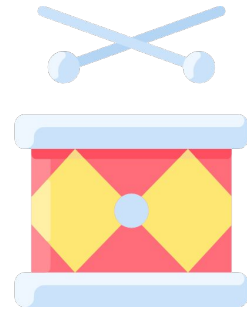
CAN WE GO NOW?

G5
Advanced

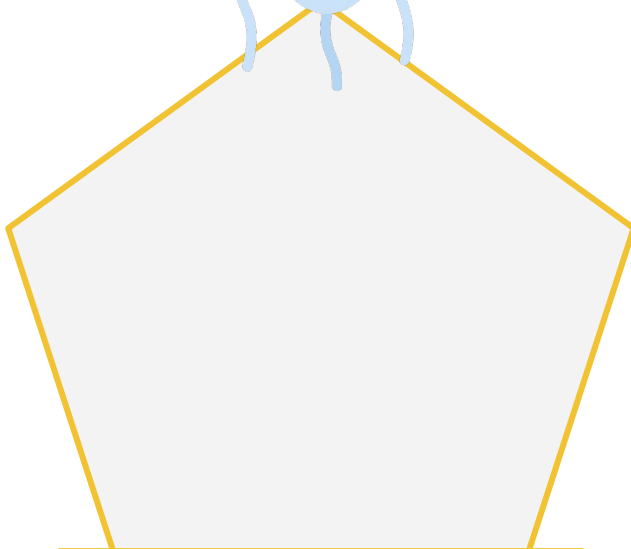
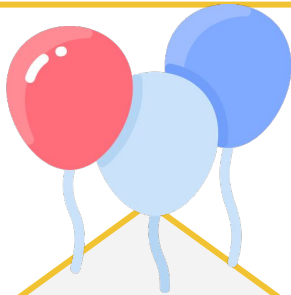
Convince your parents to go to the carnival today by giving two pairs of fractions for the categories written below.



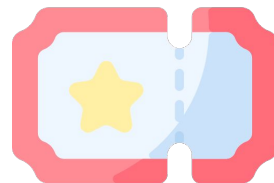
WITH LCM OF 12



WITH LCM OF 18



WITH LCM OF 6



CLOSING TIME

G5
Advanced

It's almost closing time. Go to your last carnival activity and complete the equations below.

SAMPLE:

$$\frac{2}{6} + \frac{1}{9} = \frac{4}{9}$$

LCD: **18**

$$\frac{2}{6} \times \frac{3}{3} = \frac{6}{18}$$

$$\frac{1}{9} \times \frac{2}{2} = \frac{2}{18}$$

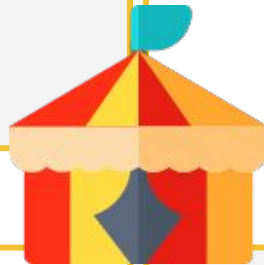
1.

$$\frac{3}{4} + \frac{5}{12} = \underline{\hspace{2cm}}$$

LCD:

$$\frac{3}{4} \times \underline{\hspace{1cm}} = \underline{\hspace{2cm}}$$

$$\frac{5}{12} \times \underline{\hspace{1cm}} = \underline{\hspace{2cm}}$$



2.

$$\frac{3}{6} + \frac{4}{2} = \underline{\hspace{2cm}}$$

LCD:

$$\frac{3}{6} \times \underline{\hspace{1cm}} = \underline{\hspace{2cm}}$$

$$\frac{4}{2} \times \underline{\hspace{1cm}} = \underline{\hspace{2cm}}$$

3.

$$\frac{4}{9} + \frac{3}{12} = \underline{\hspace{2cm}}$$

LCD:

$$\frac{4}{9} \times \underline{\hspace{1cm}} = \underline{\hspace{2cm}}$$

$$\frac{3}{12} \times \underline{\hspace{1cm}} = \underline{\hspace{2cm}}$$



ANSWER GUIDE

Activity 1

4 = 4 8 **12** 16 20 24 28 32 36 40

3 = 3 6 9 **12** 15 18 21 24 27 30

5 = 5 **10** 15 20 25 30 35 40 45 50

2 = 2 4 6 8 **10** 12 14 16 18 20

6 = 6 12 18 24 **30** 36 42 48 54 60

5 = 5 10 15 20 25 **30** 35 40 45 50

5 = 5 10 15 20 25 30 35 **40** 45 50

8 = 8 16 24 32 **40** 48 56 64 72 80

Activity 2

$$\frac{4}{7} + \frac{1}{5} = \frac{27}{35}$$

$$\frac{1}{8} + \frac{2}{5} = \frac{21}{40}$$

$$\frac{2}{3} + \frac{3}{4} = \frac{17}{12}$$

$$\frac{1}{6} + \frac{2}{5} = \frac{17}{30}$$

$$\frac{3}{4} + \frac{1}{7} = \frac{25}{28}$$

Activity 3

1. $\frac{4}{3} + \frac{3}{7} = \frac{37}{21}$

2. $\frac{3}{5} + \frac{2}{8} = \frac{17}{20}$

3. $\frac{5}{7} + \frac{5}{3} = \frac{50}{21}$

4. $\frac{7}{5} + \frac{4}{3} = \frac{41}{15}$

5. $\frac{4}{5} + \frac{7}{4} = \frac{51}{20}$

Activity 4

1. TRUE

2. FALSE

3. FALSE

4. FALSE

5. TRUE

6. TRUE



ANSWER GUIDE

Activity 5

$$1. \frac{4}{5} + \frac{3}{7} = \frac{43}{35}$$

$$2. \frac{3}{8} + \frac{4}{7} = \frac{53}{56}$$

$$3. \frac{5}{3} + \frac{4}{7} = \frac{47}{21}$$

$$4. \frac{3}{7} + \frac{3}{8} = \frac{45}{56}$$

$$5. \frac{6}{8} + \frac{5}{6} = \frac{39}{24}$$

$$6. \frac{6}{7} + \frac{2}{4} = \frac{19}{14}$$

$$7. \frac{3}{5} + \frac{5}{4} = \frac{8}{5}$$

$$8. \frac{2}{8} + \frac{2}{6} = \frac{7}{12}$$

Activity 6

$$1. \frac{2}{4} + \frac{3}{5} = \frac{11}{5}$$

$$2. \frac{1}{6} + \frac{3}{4} = \frac{9}{12}$$

$$3. \frac{3}{4} + \frac{2}{6} = 1$$

$$4. \frac{2}{4} + \frac{3}{5} + \frac{3}{4} = \frac{27}{20}$$

$$5. \frac{1}{6} + \frac{2}{6} + \frac{3}{4} = \frac{15}{12}$$

Activity 7

$$1. \frac{7}{5}$$

$$2. \frac{38}{21}$$

$$3. \frac{13}{12}$$

$$4. \frac{13}{10}$$

$$5. \frac{55}{18}$$

Activity 8

$$1. \frac{3}{5} + \frac{6}{10} = \frac{6}{5}$$

$$2. \frac{4}{12} + \frac{5}{6} = \frac{7}{6}$$

$$3. \frac{3}{9} + \frac{5}{6} = \frac{7}{6}$$



ANSWER GUIDE

Activity 9

LCM OF 12

$$1/3 \text{ \& } 1/4$$

$$1/6 \text{ \& } 1/12$$

LCM OF 18

$$1/6 \text{ \& } 1/9$$

$$1/9 \text{ \& } 1/18$$

LCM OF 8

$$1/2 \text{ \& } 1/3$$

$$1/3 \text{ \& } 1/6$$

**Answers may still vary.*

Activity 10

$$1. \quad 3/4 + 5/12 = 7/6$$

LCD: **12**

$$3/4 \times 3/3 = 9/12$$

$$5/12 \times 1/1 = 5/12$$

$$2. \quad 3/6 + 4/2 = 5/2$$

LCD: **6**

$$3/6 \times 1/1 = 3/6$$

$$4/2 \times 3/3 = 12/6$$

$$3. \quad 4/9 + 3/12 = 25/36$$

LCD: **36**

$$4/9 \times 4/4 = 16/36$$

$$3/12 \times 3/3 = 9/36$$



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