



Helping With Math

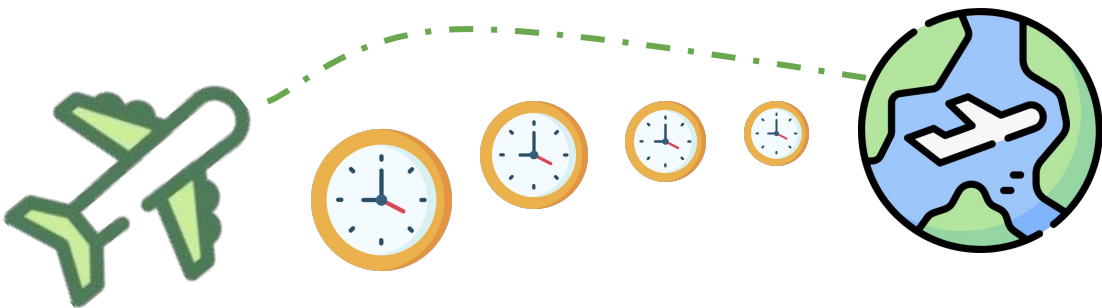
Addition and Subtraction of Time



GRADE 3



In the concept of time, the idea of addition and subtraction can still be applied to better measure and determine the results driven. Learning to add and subtract time is very useful in our everyday lives.




How do we add time?

- Add the number of hours.
- Add the number of minutes.
- If the minutes are 60 or more, subtract 60 from the minutes and add 1 to hours.



EXAMPLES OF ADDITION OF TIME

 DESTINATION	ETD	ETA
New York to California	10: 50 AM	?
Toronto to London	1:00 PM	?
Japan to Singapore	9:15 AM	?



1. If the flight time from New York to California is 5 hours and 20 minutes, what is the ETD for this destination?

10 : 50 AM plus 5 hours and 20 minutes

- For hours:
 - $10 + 5 = 15$ (12 nn plus 3 hrs equals 3:00 PM)
 - For minutes:
 - $50 + 20 = 70$ (1 hour and 10 minutes)
- 3:00 PM plus 1 hour and 10 minutes is


4: 10 PM



ETD is an abbreviation for “Estimated Time of Departure” while **ETA** means “Estimated time of Arrival. You commonly see this signs in airports, train stations, etc.



EXAMPLES OF ADDITION OF TIME

 DESTINATION	ETD	ETA
New York to California	10: 50 AM	4:10 PM
Toronto to London	1:00 PM	?
Japan to Singapore	9:15 AM	?



2. What is the ETA for Toronto to London if the flight time is 7 hours and 37 minutes?

1:00 PM plus 7 hours and 37 minutes

- For hours:
 -
- For minutes:
 -



3. What is the ETA for Japan to Singapore if the flight time is 6 hours and 58 minutes?



STEPS IN SUBTRACTING TIME



How do we subtract time?

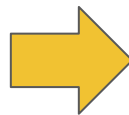


- Subtract the number of hours.
- Subtract the number of minutes.
- Regroup an hour into 60 minutes if needed.

EXAMPLES OF SUBTRACTING TIME



Nikko left their house at 8:15 AM to go to school. He arrived around 8:41 AM at school. How long was the travel time of Nikko from his house to school?



$$\begin{array}{r} 8 : 41 \\ - 8 : 15 \\ \hline 0 : 26 \end{array}$$

Nikko's travel time is 26 minutes.



PRACTICE EXERCISES

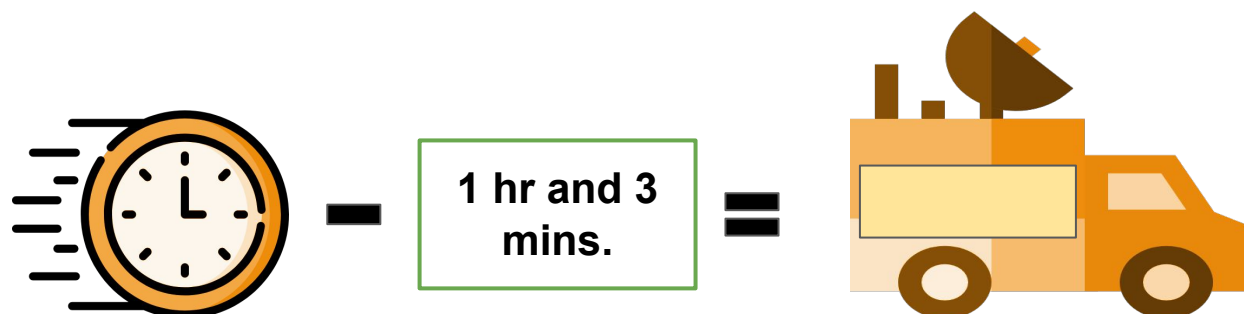
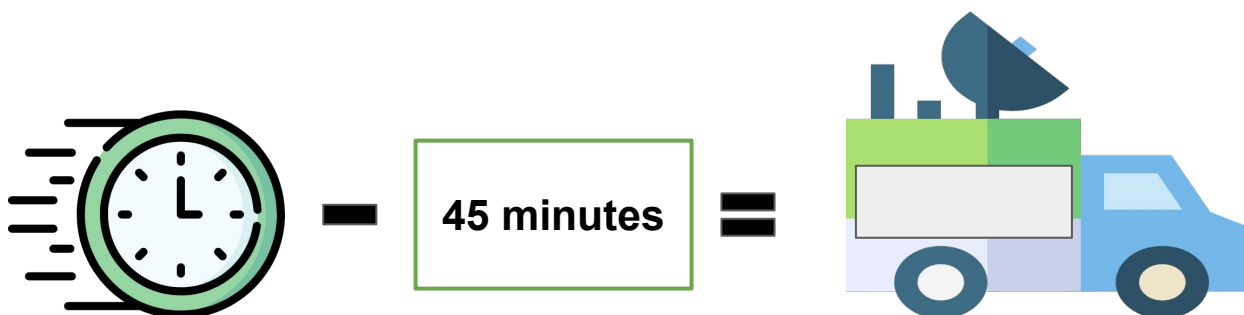
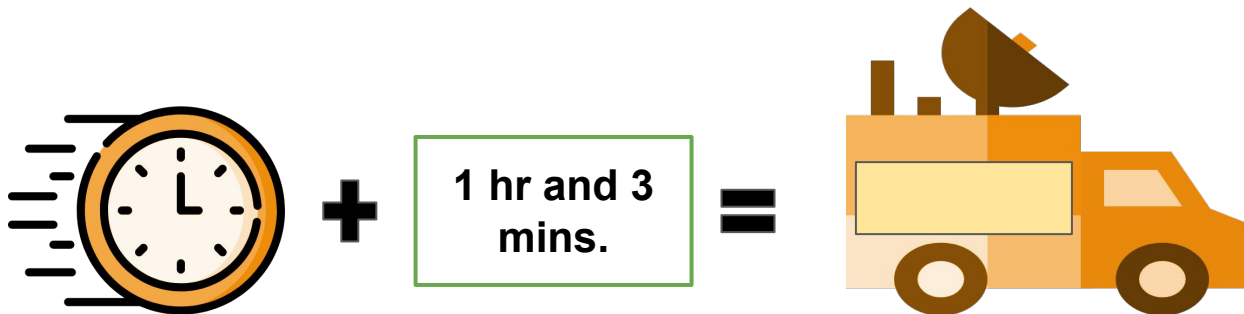


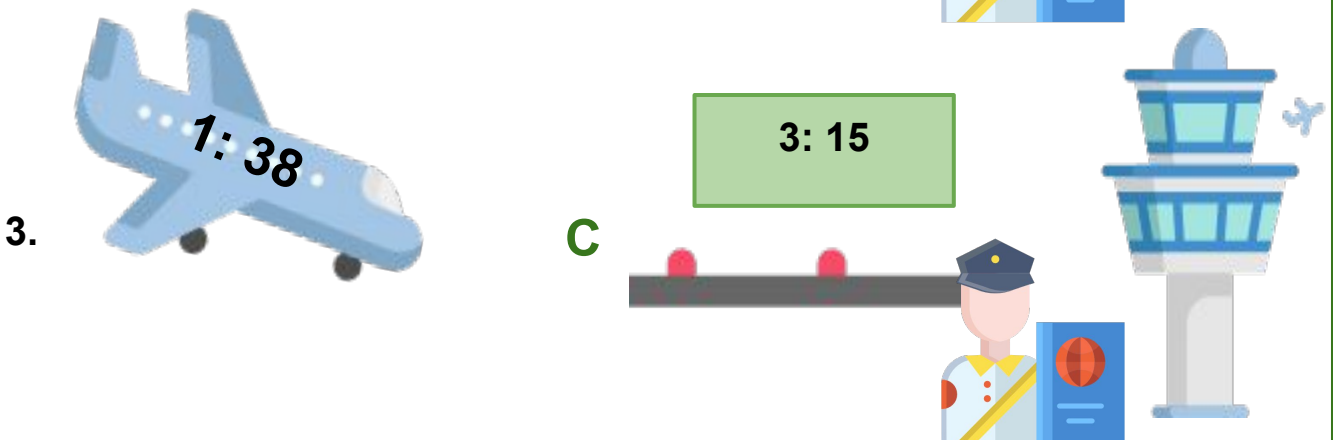
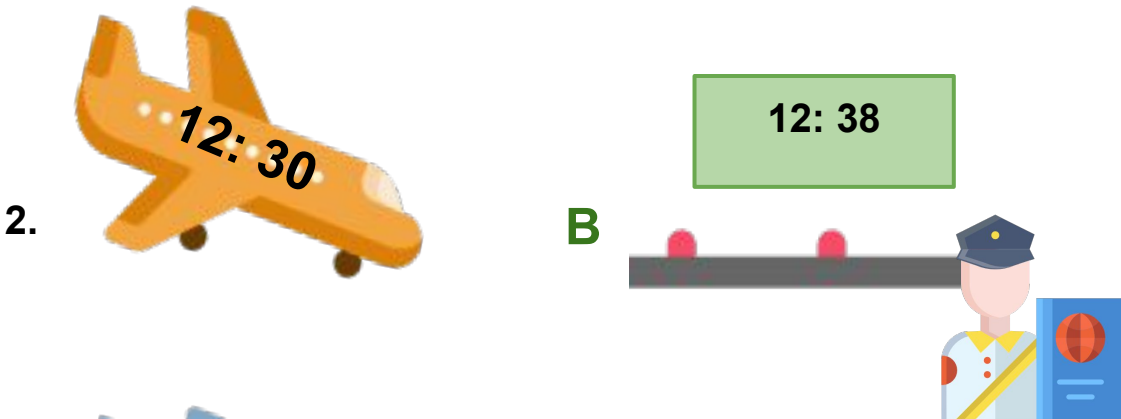
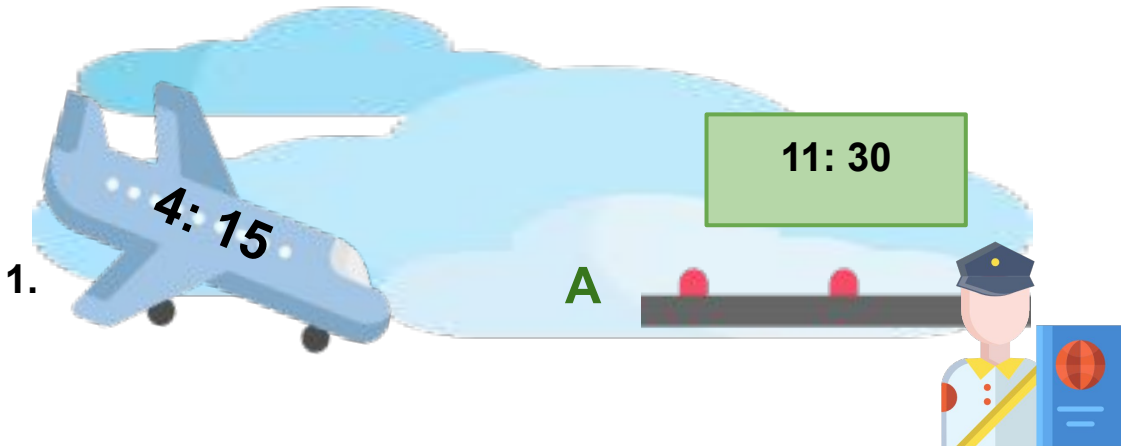
TABLE OF ACTIVITIES

1. Connecting Flights
2. Oh My! Flights are Delayed!
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5. Car Race Tracks
6. Delivery Cars
7. ETD and ETA
8. Train Has Arrived
9. My Travel Journey
10. My Boarding Pass



CONNECTING FLIGHTS

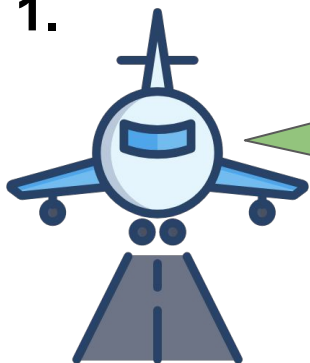
Draw a line to connect the plane to its landing area that displays a time one hour earlier.



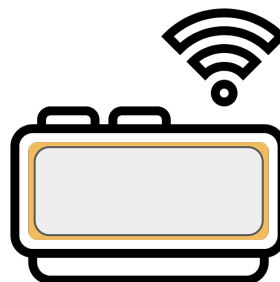
OH MY! FLIGHTS ARE DELAYED

Help the passengers to determine the new schedule of their flights by writing the correct time.

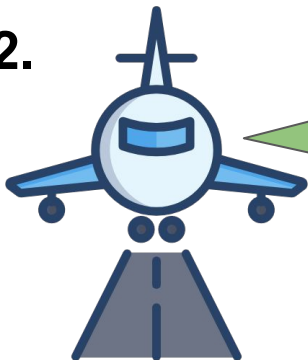
1.



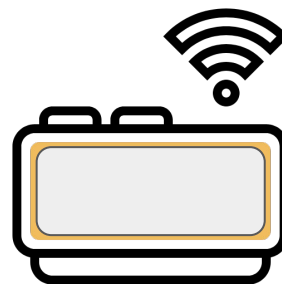
The ETD is 12: 15 PM
but the flight will be
delayed by 27
minutes.



2.

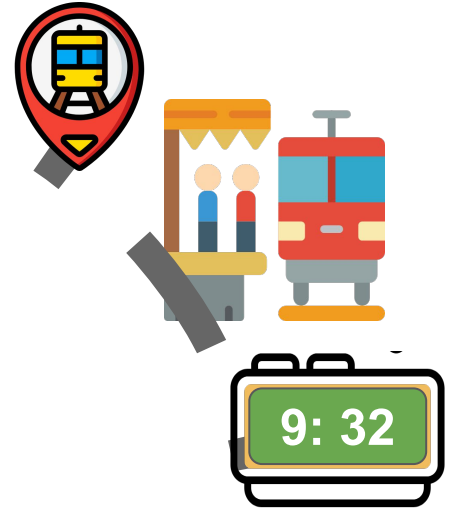


The ETD is 3: 25 PM
but the flight will be
delayed by 16
minutes.

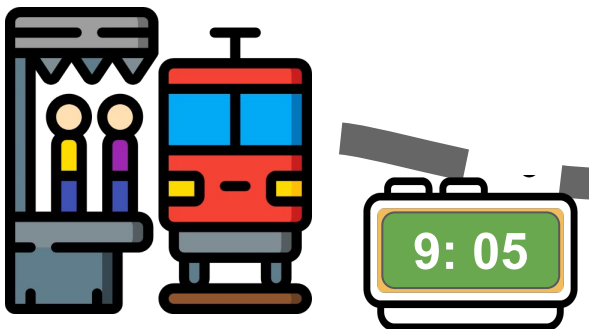
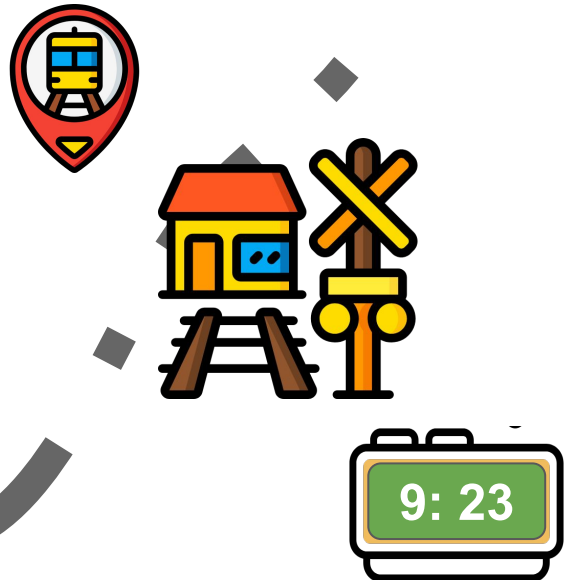


MEETING WITH TRAIN STATIONS

Help Mr. and Mrs. Train to calculate the time they needed to reach the last train station.



How long does it take to travel all of the stations?



MY TRAVEL DESTINATIONS

Match the car and its corresponding destination by drawing a line.

2 hours later
than 8:10

1

4 hrs earlier
than 6:50

2

3 hrs and 20
mins later
than 10:30

3

1 hr and 30
mins earlier
than 3:45

4



1:50



2:15



10:10



2:50



CAR RACE TRACKS

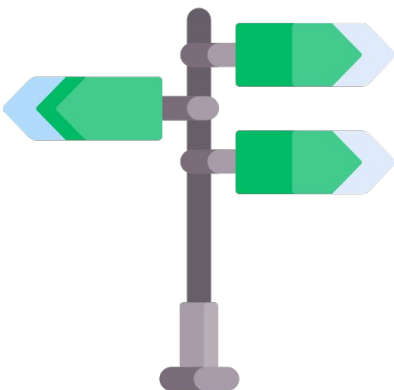
Let's help Mr. Racer to find out who will be the winner on this race.



Finished the race
24 mins earlier
than 8:55.



Finished the race
15 mins later than
8:17.



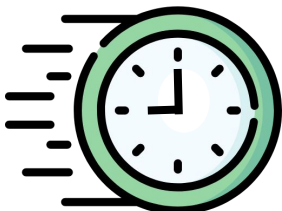
Which car is the winner? The yellow sports car or the red sports car? How did you find out?




DELIVERY CARS

Here's a delivery! What time should these delivery cars will arrive?

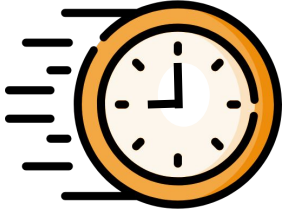
1

 $+$

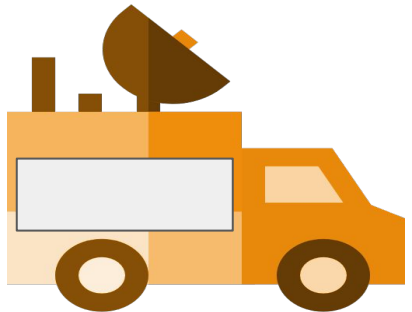
25 minutes

 $=$ 

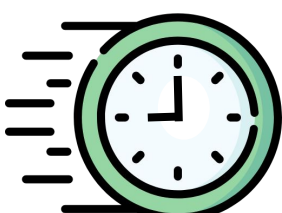
2

 $+$

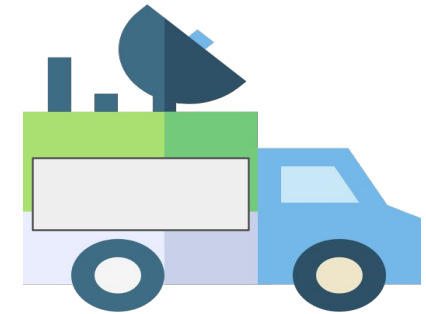
1 hr and 10 mins.

 $=$ 

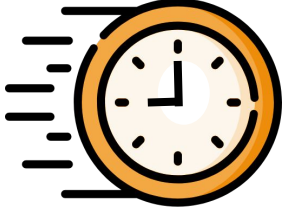
3

 $-$

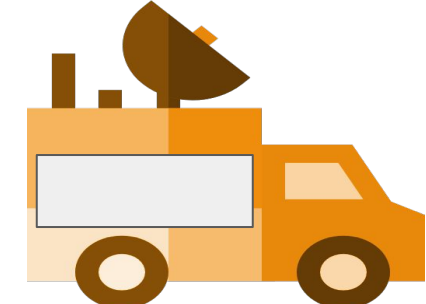
10 mins

 $=$ 

4

 $-$


2 hrs and 30 mins.

 $=$ 



ETD AND ETA

Calculate the ETA of the following flights.

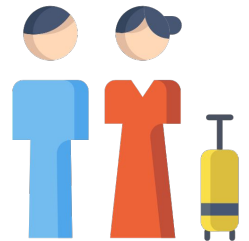
 DESTINATION	ETD	ETA
New York to Las Vegas	10: 50 AM	
London to San Francisco	8:00 AM	
Canada to New York	9:15 AM	



New York to Las Vegas trip has 4 hours and 38 minutes travel time. What is its ETA?



London to San Francisco trip has 11 hours and 15 minutes travel time. What is its ETA?

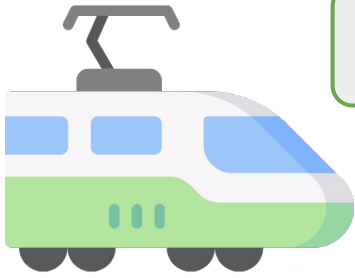


Canada to New York trip has 1 hour and 11 minutes travel time. What is its ETA?



TRAIN HAS ARRIVED

Maine the Train arrives every 12 mins to each station. Write the time of arrival of the train on the box if it departs around 8: 05 AM.



8: 05 AM

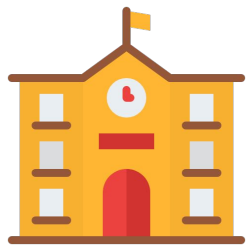
1



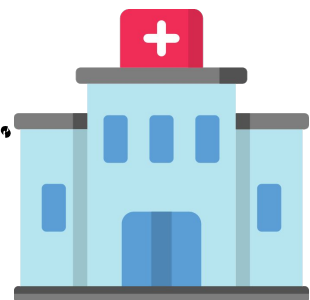
2



3



4



5



MY TRAVEL JOURNAL

Think of four travel destinations and complete the table below. You may interview an adult to help you with this.



DESTINATION

**TIME OF
DEPARTURE**

**TIME OF
ARRIVAL**



MY BOARDING PASS

Boarding pass serves as an exit ticket in the airport and other stations. Answer the questions provided.



What do you think are the importance of learning adding and subtracting time?



Share your personal experience related to the lesson.



ANSWER GUIDE

Activity 1

1. C
2. A
3. B

Activity 2

1. 12:42 PM
2. 3:41 PM

Activity 3

1. 37 MINUTES

Activity 4

1. C
2. D
3. A
4. B

Activity 5

1. The yellow car reached the finish line at 8:31 while the red car reached the finish line at 8:32. So, the yellow car is the winner.



ANSWER GUIDE

Activity 6

1. 9:25
2. 10:10
3. 8:50
4. 6:30

Activity 7

1. 3:28 PM
2. 7:15 PM
3. 10:26 AM

Activity 8

1. 8:05
2. 8:17
3. 8:29
4. 8:41
5. 8:53

Activity 9 & 10

Answers may vary as the questions require subjective answers.



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