

Chapter 5: Time Measurement and Intervals

Dear Family,

During the next few weeks, our math class will be learning how to tell time to the nearest minute and how to measure elapsed time.

Please refer to the attached papers. They show what we will be learning in Chapter 5 over the next two weeks. You can also review the examples to help with homework. Be sure to save these pages in your Math folder on GoodNotes.

Vocabulary

a.m. The times after midnight and before noon.

elapsed time: The amount of time that passes from the start of an activity to the end of the activity.

p.m. The times after noon and before midnight.

- Homework due date: **Sunday, October 5th**
- Quiz on **Friday, October. 3rd** (Monday's homework is practice for the Quiz)
- Feel free to contact me with any questions at diana.charaf@archimedean.org

Complete homework daily based on the schedule provided below:

Monday 09/29

Tuesday 09/30

Wednesday 10/01

Thursday 10/02

Friday 10/03

CBA on IXL

5ZQ on IXL

EQS on IXL

L5U on IXL

MUC on IXL

Chapter 5: Time Measurement and Intervals

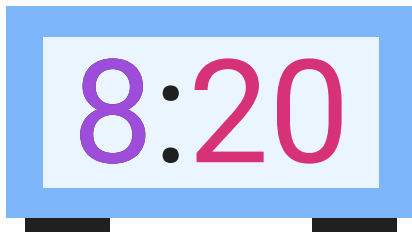
Part 1:

How to tell time

What time is it? A clock can show you the answer!

Types of clocks

A **digital clock** shows the **hour**, then a colon, and then the **minutes**.



An **analog clock** has two hands. The shorter hand shows the **hour**. The longer hand shows the **minutes**.

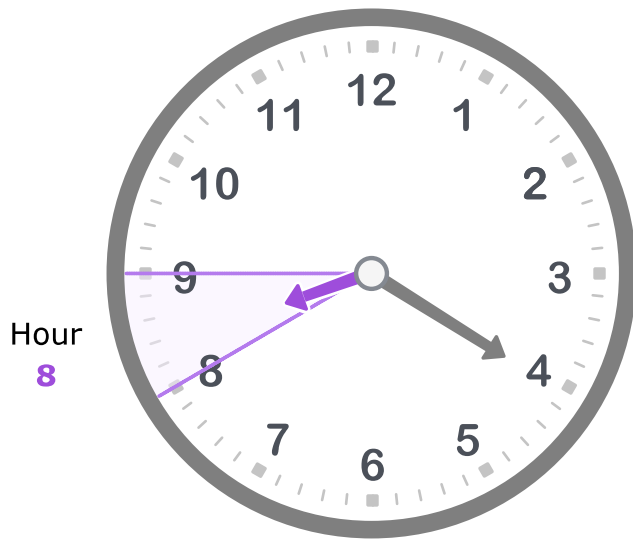


Reading analog clocks

You can read an analog clock by looking at the hands.

First, look at the **hour hand**. It points directly to the number of the hour or somewhere between that number and the next number.

Look at this example. The hour hand is between 8 and 9. So, the hour is **8**.



Then, look at the **minute hand**. The minute hand starts at the top of the clock. For every minute that passes, it moves one tick mark around the clock.

Start at the top and count the tick marks to see how many minutes have passed.

You can count by 1s.



Or, you can count by 5s.



This minute hand shows **20 minutes**. So, the time is 20 minutes past 8, or **8:20**.

Let's try it!



The hour hand is pointing to the 5. **The hour is 5.**

The minute hand is pointing to the 12. This shows **0 minutes** after the hour.

The time is **5:00**. You can also say 5 o'clock.



The hour hand is pointing between 9 and 10. It is past 9 o'clock but not 10 o'clock yet. **The hour is 9.**

The minute hand is pointing between 4 and 5. Start at the top, and count by 5s until you get to the 4. Then, count by 1s for the last two tick marks. This shows **22 minutes** after the hour.

The time is **9:22**.

Sometimes you can use special words to tell time, such as quarter (15 minutes) and half (30 minutes). Please read the examples below.

Part 2:

Time words

For certain times, you can use special time words. Look below to see how to use those special time words.

When the number of minutes is 45, you can say it is "15 minutes to" the next hour. You can also say it is "a quarter to" the next hour.



For example, you can say it is 15 minutes to 3 or a quarter to 3.

When the number of minutes is 15, you can say it is "15 minutes after" the hour. You can also say it is "a quarter past" the hour.



For example, you can say it is 15 minutes after 3 or a quarter past 3.

When the number of minutes is 30, you can say it is "half past" the hour.



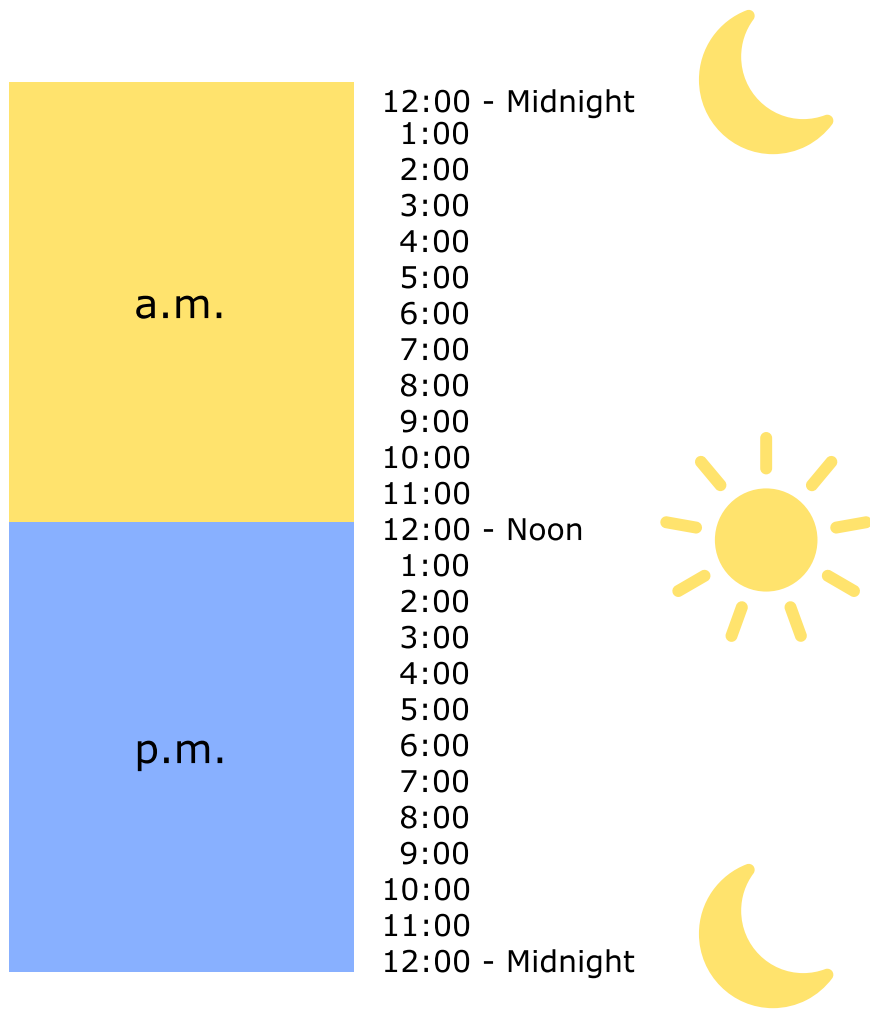
For example, you can say it is half past 3.

Part 3:

A.m. and p.m.

How can you tell the difference between 6 o'clock in the morning and 6 o'clock at night? Use a.m. and p.m.!

There are 24 hours in a day but only 12 hours on a clock. So, we split the day into two parts. The first part of the day is called a.m. The second part of the day is called p.m.



At 6:00 a.m. you might be waking up.

At 6:00 p.m. you might be eating dinner.

Midnight is 12:00 a.m. Noon is 12:00 p.m.

Part 4:

Elapsed time

What is elapsed time?

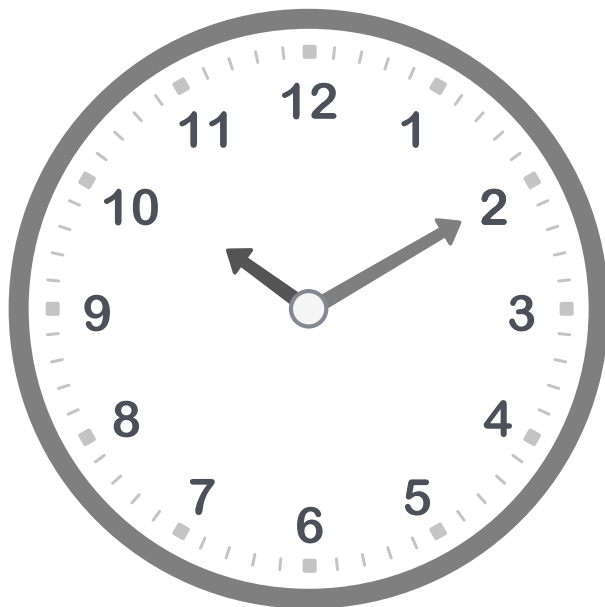
Elapsed time is the amount of time that **elapses**, or passes, from the beginning of an event to its end. Elapsed time is an important skill for everyday life!

Elapsed time on the clock

You can use a clock to solve elapsed time problems. Just move the clock's hands to show the minutes or hours that have passed.

Let's try it!

Look at this clock. Right now, the clock shows 10:10. What time will it be in 30 minutes?



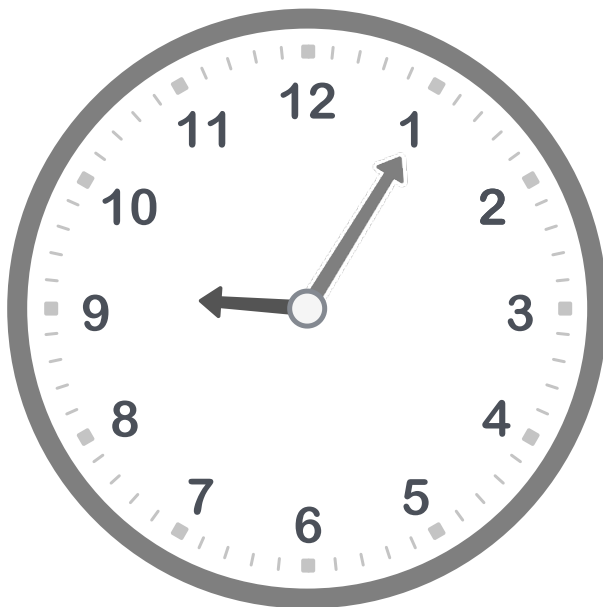
To solve this problem, move the minute hand forward 30 minutes.



So, in 30 minutes it will be 10:40!

Let's try another one!

Look at this clock. Right now, the clock shows 9:05. What time was it 15 minutes ago?



To solve this problem, move the minute hand back 15 minutes. Since the minute hand crosses over the 12, the hour changes too.



So, 15 minutes ago it was 8:50!

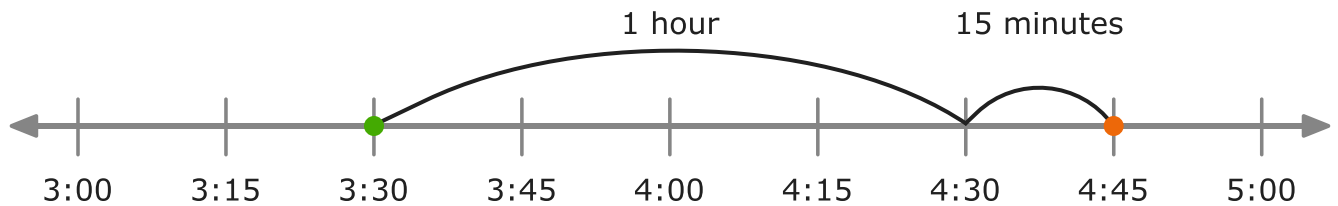
Elapsed time on the number line

You can also use a number line to solve elapsed time problems. Just make jumps to show the minutes or hours that have passed.

Let's try it!

Maria started reading at 3:30. She read for 1 hour and 15 minutes. At what time did Maria stop reading?

Use a number line and jump ahead to find out. Start at 3:30. Jump ahead 1 hour. Then jump ahead 15 minutes more.

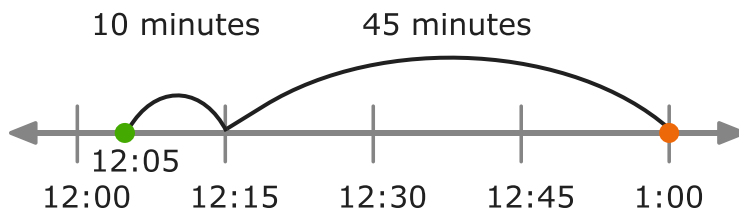


So, Maria stopped reading at 4:45!

Let's try another one!

A baker put a cake in the oven at 12:05. He took the cake out at 1:00. How long was the cake in the oven for?

Start at 12:05. Jump ahead 10 minutes to get to 12:15. Then jump ahead 45 minutes to get to 1:00.



$$10 \text{ minutes} + 45 \text{ minutes} = 55 \text{ minutes}$$

So, the cake was in the oven for 55 minutes!