

3rd Grade Math: Converting Hours and Minutes

What Are Hours and Minutes?

Hours and **minutes** are units of time. An **hour** is a longer unit, and a **minute** is a smaller part of an hour. In 3rd grade, students learn to convert between hours and minutes to solve time-related problems.

Key Time Facts:

- **1 hour = 60 minutes**
- **Half an hour = 30 minutes**
- **A quarter of an hour = 15 minutes**
- **3/4 of an hour = 45 minutes**

Converting Hours to Minutes

To convert **hours to minutes**, multiply the number of hours by 60, since there are 60 minutes in an hour.

Example 1: Converting Hours to Minutes

Problem:

How many minutes are in 3 hours?

Solution:

Since 1 hour = 60 minutes, multiply the number of hours by 60:

$$3 \text{ hours} \times 60 = 180 \text{ minutes}$$

So, 3 hours is equal to **180 minutes**.

Converting Minutes to Hours

To convert **minutes to hours**, divide the number of minutes by 60.

Example 2: Converting Minutes to Hours

Problem:

How many hours is 240 minutes?

Solution:

Since 1 hour = 60 minutes, divide the number of minutes by 60:

$$240 \text{ minutes} \div 60 = 4 \text{ hours}$$

So, 240 minutes is equal to **4 hours**.

Converting Between Hours and Minutes in Word Problems

Example 3: Mixed Conversion

Problem:

You spend 2 hours and 30 minutes at the zoo. How many minutes in total is that?

Solution:

First, convert the hours to minutes:

$$2 \text{ hours} \times 60 = 120 \text{ minutes}$$

Now add the 30 minutes:

$$120 \text{ minutes} + 30 \text{ minutes} = 150 \text{ minutes}$$

You spent **150 minutes** at the zoo.

Practice Problem: Mixed Conversion

Problem:

A movie lasts for 1 hour and 45 minutes. How many minutes is that in total?

Solution:

First, convert the 1 hour to minutes:

$$1 \text{ hour} \times 60 = 60 \text{ minutes}$$

Now add the 45 minutes:

$$60 \text{ minutes} + 45 \text{ minutes} = 105 \text{ minutes}$$

The movie is **105 minutes** long.

Elapsed Time Involving Hours and Minutes

Sometimes, you need to find how much time has passed, using both hours and minutes.

Example 4: Elapsed Time

Problem:

You start a game at 3:15 p.m. and finish at 5:00 p.m. How much time has passed?

Solution:

- From 3:15 p.m. to 4:15 p.m. is **1 hour**.
- From 4:15 p.m. to 5:00 p.m. is **45 minutes**.

Add the hours and minutes together:

$$1 \text{ hour} + 45 \text{ minutes} = 1 \text{ hour and } 45 \text{ minutes}$$

So, **1 hour and 45 minutes** have passed.

Conclusion:

- **1 hour = 60 minutes.** Use this key fact to convert between hours and minutes.
- Being able to convert between hours and minutes is useful for solving real-world time problems, like figuring out how long events last or what time things will end.

- Practice these conversions and elapsed time problems to become a time-telling expert!