



# Convert from one unit of time to another

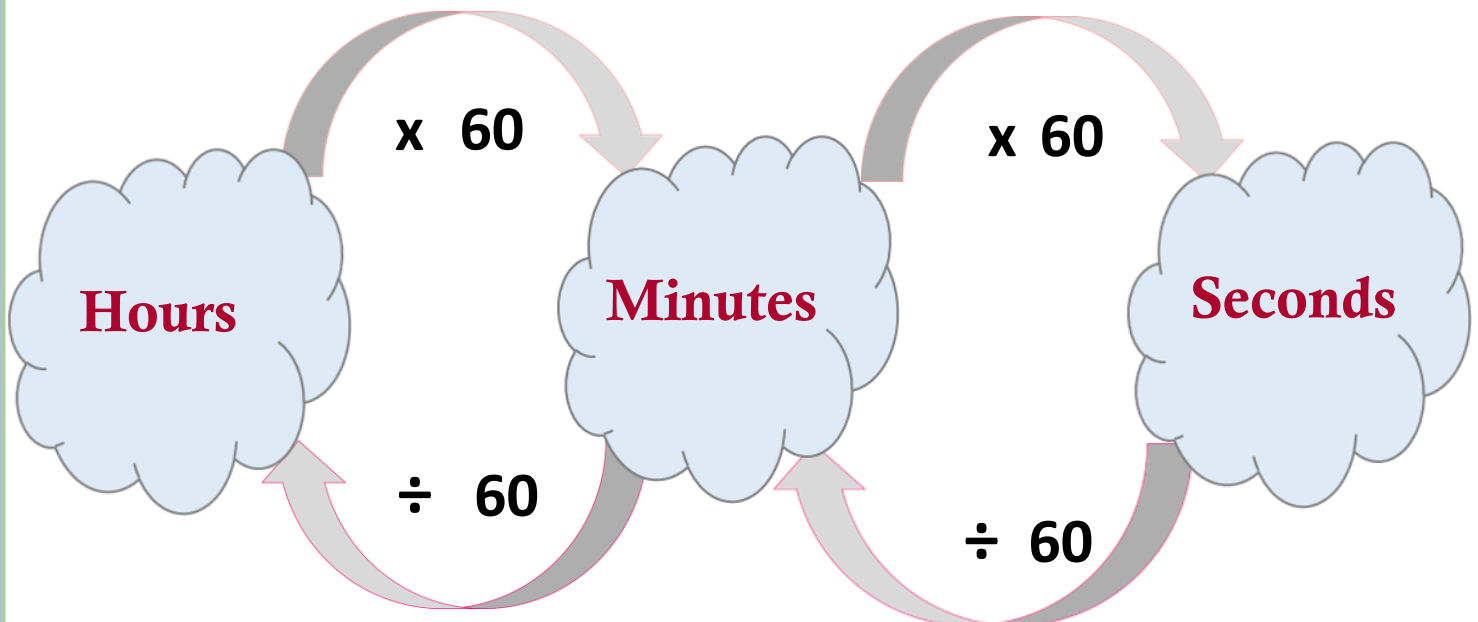


# Convert from one unit of time to another

## Conversions :



- 1 Hour = 60 Minutes
- 1 Minute =  $\frac{1}{60}$  Hour
- 1 Minute = 60 Seconds
- 1 Second =  $\frac{1}{60}$  Minutes



# Convert hours into minutes

To convert hours into minutes, we have to **multiply with 60**.

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

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

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

**Example: 1** Convert 5 hours into minutes.

**Solution:**

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

$$5 \text{ hours} = 5 \times 60 \text{ minutes}$$

$$= 300 \text{ minutes}$$

$$5 \text{ hours} = 300 \text{ minutes}$$

**Example: 2** Convert 8 hours into minutes.

**Solution:**

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

$$8 \text{ hours} = 8 \times 60 \text{ minutes}$$

$$= 480 \text{ minutes}$$

$$8 \text{ hours} = 480 \text{ minutes}$$



## Convert hours & minutes into minutes

**Example: 3**

**Convert 6 hours and 25 minutes into minutes.**

**Solution:**

**Step 1:**

Convert the hours into minutes.

$$\begin{aligned} 6 \text{ hours} &= 6 \times 60 \text{ minutes} \\ &= 360 \text{ minutes} \end{aligned}$$

$$6 \text{ hours} = 360 \text{ minutes}$$

**Step 2:**

Add the converted minutes with the given minutes

$$\begin{aligned} 6 \text{ hours and } 25 \text{ minutes} &= 360 + 25 \\ &= 385 \text{ minutes} \end{aligned}$$

$$6 \text{ hours and } 25 \text{ minutes} = 385 \text{ minutes}$$



## Convert minutes into seconds

To convert minutes into seconds, we have to **multiply with 60**.

$$1 \text{ minute} = 60 \text{ seconds}$$

$$\begin{aligned} 2 \text{ minutes} &= 2 \times 60 \\ &= 120 \text{ seconds} \end{aligned}$$

**Example: 1** Convert 3 minutes into seconds.

**Solution:**

$$1 \text{ minute} = 60 \text{ seconds}$$

$$3 \text{ minutes} = 3 \times 60 \text{ seconds}$$

$$= 180 \text{ seconds}$$

$$3 \text{ minutes} = 180 \text{ seconds}$$

**Example: 2** Convert 9 minutes into seconds.

**Solution:**

$$1 \text{ minute} = 60 \text{ seconds}$$

$$9 \text{ minutes} = 9 \times 60 \text{ seconds}$$

$$= 540 \text{ seconds}$$

$$9 \text{ minutes} = 540 \text{ seconds}$$



## Convert minutes & seconds into seconds

### Example: 3

Convert 45 minutes and 35 seconds into seconds.

### Solution:

#### Step 1:

Convert the minutes into seconds.

$$\begin{aligned} 45 \text{ minutes} &= 45 \times 60 \text{ seconds} \\ &= 2700 \text{ seconds} \end{aligned}$$

$$45 \text{ minutes} = 2700 \text{ seconds}$$

#### Step 2:

Add the converted seconds with the given seconds

$$\begin{aligned} 45 \text{ minutes and } 35 \text{ seconds} &= 2700 + 35 \\ &= 2735 \text{ seconds} \end{aligned}$$

$$45 \text{ minutes and } 35 \text{ seconds} = 2735 \text{ seconds}$$



## Convert minutes into hours

To convert minutes to hours, we have to **divide by 60**.

$$1 \text{ minute} = 1 \div 60 \text{ hours}$$

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

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

**Example: 1** Convert 240 minutes into hours.

**Solution:**

$$1 \text{ minute} = 1 \div 60 \text{ hours}$$

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

$$= 4 \text{ hours}$$

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

**Example: 2** Convert 420 minutes into hours.

**Solution:**

$$1 \text{ minute} = 1 \div 60 \text{ seconds}$$

$$420 \text{ minutes} = 420 \div 60 \text{ hours}$$

$$= 7 \text{ hours}$$

$$420 \text{ minutes} = 7 \text{ hours}$$



## Convert seconds into minutes

To convert seconds into minutes , we have to **divide by 60**.

$$1 \text{ second} = 1 \div 60 \text{ minutes}$$

$$60 \text{ seconds} = 60 \div 60 = 1 \text{ minute}$$

$$180 \text{ seconds} = 180 \div 60 = 3 \text{ minutes}$$

**Example: 1** Convert 300 seconds into minutes.

**Solution:**

$$1 \text{ second} = 1 \div 60 \text{ minutes}$$

$$300 \text{ seconds} = 300 \div 60 \text{ minutes}$$

$$= 5 \text{ minutes}$$

$$300 \text{ seconds} = 5 \text{ minutes}$$

**Example: 2** Convert 600 seconds into minutes.

**Solution:**

$$1 \text{ second} = 1 \div 60 \text{ minutes}$$

$$600 \text{ seconds} = 600 \div 60 \text{ minutes}$$

$$= 10 \text{ minutes}$$

$$600 \text{ seconds} = 10 \text{ minutes}$$

