



## Addition and Subtraction of Times

### Introduction

- We can add and subtract time just like numbers, but we must remember.
- 1 minute = 60 seconds
- 1 hour = 60 minutes
- While adding or subtracting time, if seconds or minutes go over 60, we convert them to the next unit.
- We write time in the format of hours: minutes: seconds.

### Examples with Solutions

**Example:** Add 2 hours 45 minutes and 1 hour 30 minutes

- ✓  $2 \text{ hours} + 1 \text{ hour} = 3 \text{ hours}$
- ✓  $45 \text{ minutes} + 30 \text{ minutes} = 75 \text{ minutes}$
- ✓  $75 \text{ minutes} = 1 \text{ hour } 15 \text{ minutes}$
- ✓ Final Answer =  $3 \text{ hours} + 1 \text{ hour } 15 \text{ minutes} = 4 \text{ hours } 15 \text{ minutes}$

**Answer:** 4 hours 15 minutes

**Example:** Subtract 5 hours 40 minutes from 8 hours 10 minutes

- ✓ Minutes:  $10 - 40$  is not possible, so borrow 1 hour
- ✓ 8 hours becomes 7 hours and  $10 + 60 = 70$  minutes
- ✓  $70 - 40 = 30$  minutes
- ✓  $7 - 5 = 2$  hours

**Answer:** 2 hours 30 minutes

**Example:** Add 3 minutes 45 seconds and 2 minutes 50 seconds

- ✓  $45 \text{ seconds} + 50 \text{ seconds} = 95 \text{ seconds}$
- ✓  $95 \text{ seconds} = 1 \text{ minute } 35 \text{ seconds}$
- ✓  $3 + 2 + 1 = 6$  minutes

**Answer:** 6 minutes 35 seconds

**Example:** Subtract 6 minutes 20 seconds from 9 minutes 15 seconds

- ✓ Seconds:  $15 - 20$  is not possible, so borrow 1 minute



✓ 9 minutes becomes 8 minutes and  $15 + 60 = 75$  seconds

✓  $75 - 20 = 55$  seconds

✓  $8 - 6 = 2$  minutes

**Answer:** 2 minutes 55 seconds

**Example:** Add 1 hour 50 minutes 40 seconds and 2 hours 15 minutes 30 seconds

✓ **Seconds:**  $40 + 30 = 70$  seconds = 1 minute 10 seconds

✓ **Minutes:**  $50 + 15 + 1 = 66$  minutes = 1 hour 6 minutes

✓ **Hours:**  $1 + 2 + 1 = 4$  hours

**Answer:** 4 hours 6 minutes 10 seconds

### Summary Points

- Add and subtract hours, minutes, and seconds separately
- Convert minutes or seconds if they go over 60
- Always borrow 1 hour = 60 minutes or 1 minute = 60 seconds when needed
- Write final time in hours: minutes: seconds format
- Use step-by-step working to avoid mistakes