

Problems involving time



Find the answer to this problem.

A train leaves the station at 7:30 A.M.
and arrives at the end of the line at
10:45 A.M. How long did
the journey take?

3 hours 15 minutes

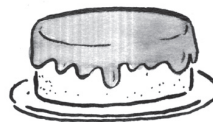
$7:30 \rightarrow 10:30 = 3 \text{ h}$
 $10:30 \rightarrow 10:45 = 15 \text{ min}$
Total = 3 h 15 min

Find the answer to each problem.

A film starts at 7:00 P.M. and finishes at
8:45 P.M. How long is the film?



A cake takes 2 hours 25 minutes to bake.
If it begins baking at 1:35 P.M., at what
time will the cake be done?



Sanjay needs to clean his bedroom
and wash the car. It takes him 1 hour
10 minutes to clean his room and
45 minutes to clean the car. If he
starts at 10:00 A.M., at what time
will he finish?



A car is taken in for repair at 7:00 A.M.
It is finished at 1:50 P.M. How long did the
repairs take?



Claire has to be at school by 8:50 A.M.
If she takes 1 hour 30 minutes to get ready,
and the trip takes 35 minutes, at what time
does she need to get up?



A bus leaves the bus station at 8:45 A.M.
and arrives back at 10:15 A.M. How long
has its trip taken?



Problems involving time



Find the answer to this problem.

A train leaves the station at 7:30 A.M. and arrives at the end of the line at 10:45 A.M. How long did the journey take?

3 hours 15 minutes

$$\begin{aligned} 7:30 &\rightarrow 10:30 = 3 \text{ h} \\ 10:30 &\rightarrow 10:45 = 15 \text{ min} \\ \text{Total} &= 3 \text{ h } 15 \text{ min} \end{aligned}$$

Find the answer to each problem.

A film starts at 7:00 P.M. and finishes at 8:45 P.M. How long is the film?

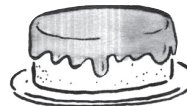
1 hour 45 minutes



$$\begin{aligned} 7:00 &\rightarrow 8:00 = 1 \text{ h} \\ 8:00 &\rightarrow 8:45 = 45 \text{ min} \\ \text{Total} &= 1 \text{ h } 45 \text{ min} \end{aligned}$$

A cake takes 2 hours 25 minutes to bake. If it begins baking at 1:35 P.M., at what time will the cake be done?

4:00 P.M.



$$\begin{aligned} 1:35 + 2 \text{ h} &= 3:35 \\ 3:35 + 25 \text{ min} &= 4:00 \end{aligned}$$

Sanjay needs to clean his bedroom and wash the car. It takes him 1 hour 10 minutes to clean his room and 45 minutes to clean the car. If he starts at 10:00 A.M., at what time will he finish?

11:55 A.M.



$$\begin{aligned} 10:00 + 1 \text{ h} &= 11:00 \\ 11:00 + 10 \text{ min} &= 11:10 \\ 11:10 + 45 \text{ min} &= 11:55 \end{aligned}$$

A car is taken in for repair at 7:00 A.M. It is finished at 1:50 P.M. How long did the repairs take?

6 hours 50 minutes



$$\begin{aligned} 7:00 &\rightarrow 1:00 = 6 \text{ h} \\ 1:00 &\rightarrow 1:50 = 50 \text{ min} \\ \text{Total} &= 6 \text{ h } 50 \text{ min} \end{aligned}$$

Claire has to be at school by 8:50 A.M. If she takes 1 hour 30 minutes to get ready, and the trip takes 35 minutes, at what time does she need to get up?

6:45 A.M.



$$\begin{aligned} 8:50 - 1 \text{ h} &= 7:50 \\ 7:50 - 30 \text{ min} &= 7:20 \\ 7:20 - 35 \text{ min} &= 6:45 \end{aligned}$$

A bus leaves the bus station at 8:45 A.M. and arrives back at 10:15 A.M. How long has its trip taken?

1 hour 30 minutes



$$\begin{aligned} 8:45 &\rightarrow 9:45 = 1 \text{ h} \\ 9:45 &\rightarrow 10:15 = 30 \text{ min} \\ \text{Total} &= 1 \text{ h } 30 \text{ min} \end{aligned}$$

Children must remember that hours are based on units of 60 rather than of 10, so when they regroup, they will add 60 to the minutes instead of the 10 they would add when regrouping numbers.