

Time Problems Worksheet **Answers**

1. Each box below contains two truths and one lie. Tick the statement in each box which contains the lie.

• The difference between 5:30pm and 8:30pm, on the same day, is 3 hours.	<input type="checkbox"/>
• 17:00 is equivalent to 5am when it is written in 12-hour time.	<input checked="" type="checkbox"/>
• The sum of 45 minutes and 1 hour 30 minutes is 2 hours 15 minutes.	<input type="checkbox"/>

• 4 hours and 30 minutes + 6 hours and 30 minutes = 11 hours.	<input type="checkbox"/>
• There are a total of 168 hours in one week.	<input type="checkbox"/>
• The time difference between midnight and midday is 24 hours.	<input checked="" type="checkbox"/>

• There is a difference of 3 hours and 11 minutes between 6:45am and 9:56am.	<input type="checkbox"/>
• 4.5 hours before 11:30am is 6:00am.	<input checked="" type="checkbox"/>
• The time will be 5:59pm when 3 hours 29 minutes are added to 2:30pm.	<input type="checkbox"/>

2. Calculate the difference between each of the following times.

a. 4:10am and 8:12am

4 hours and 2 minutes

d. 8:12am and 3:13pm

7 hours and 1 minute

b. 9:20am and 5:40pm

8 hours and 20 minutes

e. 6:15pm and midnight

5 hours and 45 minutes

c. 7:32am and 8:19am

47 minutes

f. 9:12pm and 8:15am, the next day

11 hours and 3 minutes

3. Calculate the difference between the following pairs of times, giving your answers in hours, minutes and seconds. Remember, you can use the DMS button on your calculator to help you.

a. 5h 35min 12s and 6h 12min 19s

37 minutes and 7 seconds

c. 1.39 hours and 9.18 hours

7 hours, 47 minutes and 24 seconds

b. 9h 14min 6s and 12h 6min 3s

2 hours, 51 minutes and 57 seconds

d. $3\frac{1}{2}$ hour and $9\frac{1}{5}$ hours

5 hours and 42 minutes

4. Aaron records the amount of time he spends on his phone each day for a week. The results are shown below.

Monday – 3 hours and 15 minutes

Tuesday – 1 hour and 19 minutes

Wednesday – 2 hours and 3 minutes

Thursday – 5 hours

Friday – 35 minutes

Saturday – 3 hours and 49 minutes

Sunday – 2 hours

What is the total time Aaron spent on his phone over the week?

18 hours and 1 minute

5. Mrs Simpson is marking essays for students in her English class. On average, it takes her 5 minutes to mark each essay and there are 28 students in the class.

a. How long does it take Mrs Simpson to mark all the essays?

2 hours and 20 minutes

Each time she finishes marking three essays, she takes a 2 minute break.

b. How long does she spend on breaks while marking the essays?

18 minutes

c. If she begins marking at 1:30am, what time will she finish marking all the essays? Write your answer in 24-hour time.

4:08am = 16:08

6. Sarah needs to organise her trip around some Victorian cities, based on the train times shown below.

Station	A.M.	P.M.
Alamein	8:33	12:48
Burwood	8:39	12:56
Riversdale	8:45	1:01
Melbourne Central	8:59	-
Southern Cross	-	1:30
Parliament	-	1:34

Use the train timetable above to answer the following questions.

- a. How long does it take to travel from Burwood Station to Melbourne Central Station in the morning?
20 minutes
- b. How long does it take to travel from Southern Cross Station to Parliament Station in the afternoon?
4 minutes
- c. Sarah wants to travel from Alamein Station to Riversdale Station. What is the difference in time between travelling in the morning compared to the afternoon?
1 minute more in the afternoon
- d. How long does it take to travel from Alamein Station to Parliament Station in the afternoon?
46 minutes
- e. Sarah catches the train from Burwood Station to Melbourne Central Station in the morning. She spends the morning shopping and then takes a taxi to Riversdale Station in the afternoon. She then catches the train from Riversdale Station to Southern Cross Station. If her total journey time for the day was 1 hour, how long was the taxi trip?
11 minutes

- f. Sarah needs to travel from Riversdale Station to Melbourne Central Station, however she misses the 8:45am train. Explain why it would not be suitable for Sarah to wait for the afternoon train and provide an alternative option to get to Melbourne Central Station.

The afternoon train which leaves Riversdale Station at 1:01am is not suitable since it does not stop at Melbourne Central Station. She will need to wait until the following morning to catch the train or she may find another mode of transportation, such as a taxi, to get to Melbourne Central Station.

Challenge Question

Jessica and Jemimah are working together to prepare dinner for their families. They want to make sure that all the food is finished at the same time. They need to prepare fried chicken, potato croquettes, roasted cauliflower and a salad.

- The fried chicken needs to be crumbed 30 minutes before it's cooked. The chicken is then fried for 6 minutes.
- The potato croquettes take 20 minutes to prepare. They then need to be cooked for 11 minutes.
- The roasted cauliflower needs to be baked for 26 minutes.
- The salad takes 12 minutes to prepare.

If they start cooking at 5:30am, state what time dinner will be ready. Then, use the table to specify the times that Jessica and Jemimah should start making each component of the meal and order the tasks from 1 to 6 (where 1 means the task should be completed first and 6 means the task should be completed last).

Dinner will be ready at	6:06am	
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TASK	TIME TO START	ORDER (1-6)
Crumb fried chicken	5:30am	1
Fry chicken	6:00am	6
Prepare potato croquettes	5:35am	2
Cook potato croquettes	5:55am	5
Bake roasted cauliflower	5:40am	3
Prepare the salad	5:54am	4

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b. How long does she spend on breaks while marking the essays?

c. If she begins marking at 1:30am, what time will she finish marking all the essays? Write your answer in 24-hour time.

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Fry chicken	_____	
Prepare potato croquettes	_____	
Cook potato croquettes	_____	

Bake roasted cauliflower	_____	
Prepare the salad	_____	