

Sukindi

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Elapsed Time - Year 5

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Elapsed Time



Elapsed time is the amount of time that passes between two events.

Start Time



When an event begins

Finish Time



When an event ends

Duration



How long the event lasts

1.

Choose a strategy



2.

Count in hours and minutes



3.

Check that the answer is reasonable





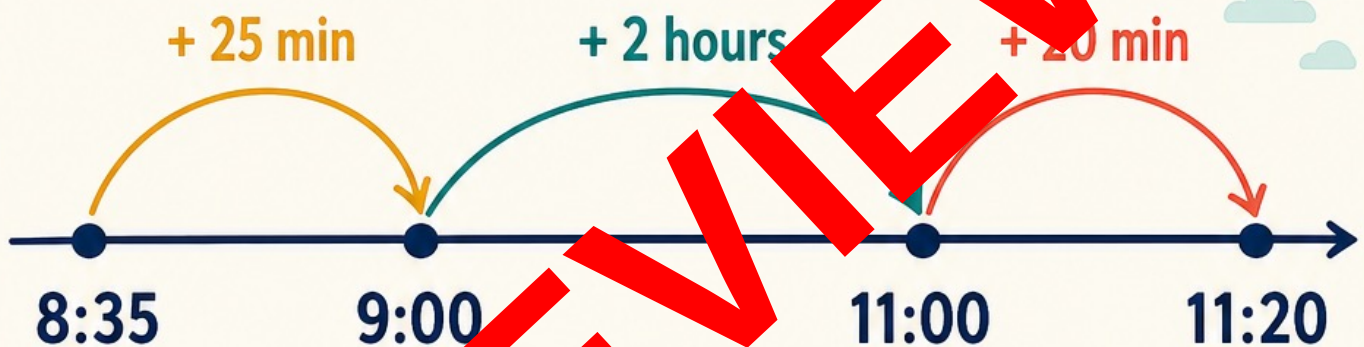
Open Number Line Strategy



Start: 8:35 am



Finish: 11:20 am



$25 \text{ min} + 2 \text{ hours} + 20 \text{ min} = 2 \text{ hours } 45 \text{ minutes}$



Elapsed time: 2 hours 45 minutes



Check: $8:35 \text{ am} + 2 \text{ hours } 45 \text{ minutes} = 11:20 \text{ am}$





Finding a Missing Time



Find the finish time

Start time + duration = finish time



1:45 pm

+



2 hours
35 minutes

=



4:20 pm



1:45 pm + 2 hours 35 minutes = 4:20 pm

Find the start time

Finish time - duration = start time



10:10 am

-



1 hour
25 minutes

=



8:45 am



10:10 am - 1 hour 25 minutes = 8:45 am



Always track am and pm carefully.



Check by reversing the operation.

Elapsed Time Quick Guide



Elapsed time is the time between a start and finish.

Three Key Relationships

- 1 $\text{Start} + \text{Duration} = \text{Finish}$
- 2 $\text{Finish} - \text{Start} = \text{Duration}$
- 3 $\text{Finish} - \text{Duration} = \text{Start}$



Strategy Reminder

- 
Count to the next hour, add whole hours, then add remaining minutes.

-  Check your am and pm.



Elapsed Time Quick Guide



Elapsed time is the time between a start and finish.

Three Key Relationships

- 1 $\text{Start} + \text{Duration} = \text{Finish}$
- 2 $\text{Finish} - \text{Start} = \text{Duration}$
- 3 $\text{Finish} - \text{Duration} = \text{Start}$



Strategy Reminder

- 
Count to the next hour, add whole hours, then add remaining minutes.

-  Check your am and pm.



Elapsed Time Match-Up

Scenario Cards 1

A



Start: 8:20 am

Finish: 9:45 am



Find the elapsed time.

B



Start: 10:35 am

Finish: 12:10 pm



Find the elapsed time.

C



Start: 1:50 pm

Finish: 4:00 pm



Find the elapsed time.

D



Start: 6:40 pm

Finish: 8:55 pm



Find the elapsed time.

E



Start: 9:55 pm

Finish: 12:20 am



Find the elapsed time.

F



Start: 11:25 am

Finish: 2:00 pm



Find the elapsed time.

Elapsed Time Match-Up

Scenario Cards 2



G



Start: 7:48 am

Finish: 9:13 am



.....
Find the elapsed time.

H



Start: 2:36 pm

Finish: 5:12 pm



.....
Find the elapsed time.



I



Start: 4:57 pm

Finish: 7:40 pm



.....
Find the elapsed time.

J



Start: 10:42 pm

Finish: 1:18 am



.....
Find the elapsed time.

K



Start: 8:05 am

Finish: 11:50 am



.....
Find the elapsed time.

L



Start: 12:15 pm

Finish: 3:58 pm



.....
Find the elapsed time.



Elapsed Time Match-Up

Answer Cards 1



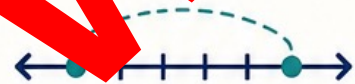
A

1 hour 25 minutes



B

1 hour 35 minutes



C

2 hours 15 minutes



D

2 hours 15 minutes



E

2 hours 25 minutes



F

2 hours 35 minutes





Elapsed Time Match-Up



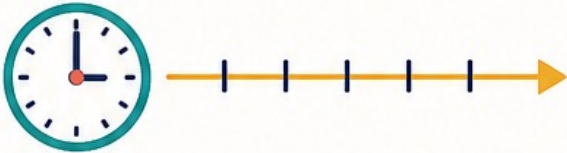
Answer Cards 2



G

.....

1 hour 25 minutes



H

.....

2 hours 36 minutes



I

.....

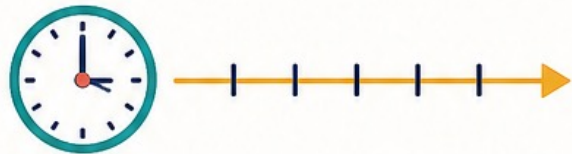
2 hours 45 minutes



J

.....

2 hours 36 minutes



K

.....

3 hours 45 minutes



L

.....

3 hours 43 minutes

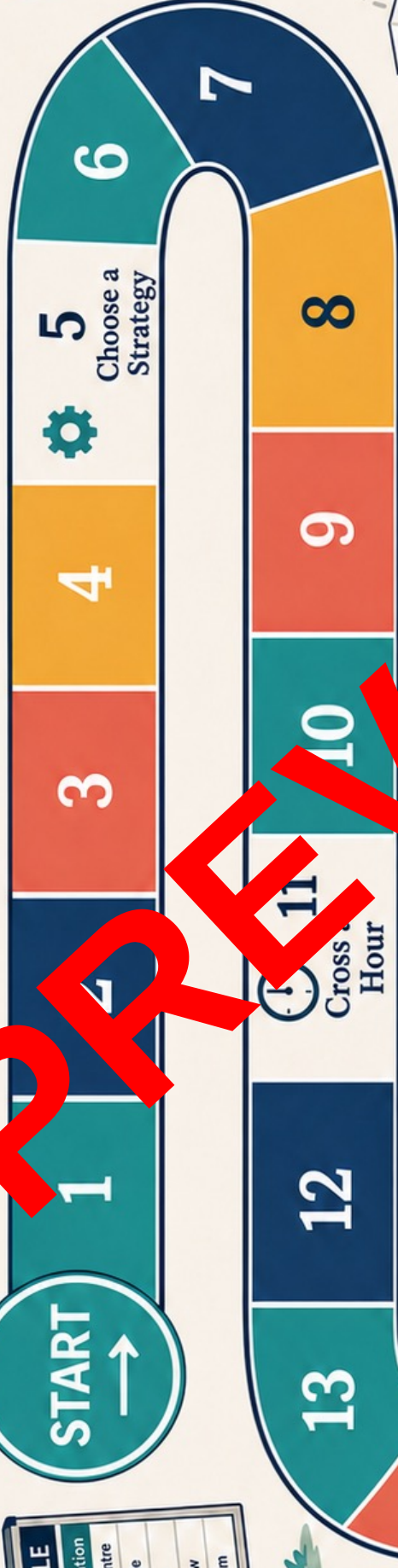


Timeline Race




Pick a challenge card on every turn.

TIMETABLE	
Time	Destination
08:15	City Centre
09:40	Lakeside
11:25	Hilltop
13:10	Seaview
15:45	Museum



Correct answer:
move 2 spaces



Explain your
move 1 bonus space

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Timeline Race



Challenge Cards 1

1

1. Find the elapsed time:
7:25 am to 8:50 am.



2

2. Find the elapsed time:
9:42 am to 11:00 am.



3

3. Find the elapsed time:
11:55 am to 1:30 pm.



4

4. Find the elapsed time:
2:18 pm to 5:04 pm.



5

5. Find the finish time:
6:45 pm + 1 hour
50 minutes.



6

6. Find the finish time:
10:40 pm + 2 hours
5 minutes.



7

7. Find the start time: finish
4:20 pm, duration
2 hours 35 minutes.



8

8. Find the start time: finish
9:10 am, duration
1 hour 55 minutes.



Timeline Race

Challenge Cards 2

9

9. Find the elapsed time:
8:58 am to 12:12 pm.



Timeline Race

Challenge Cards 2

10

10. Find the elapsed time:
3:47 pm to 6:30 pm.



Timeline Race

Challenge Cards 2

11

11. Find the elapsed time:
11:36 pm to 2:05 am.



Timeline Race

Challenge Cards 2

12

12. Find the elapsed time:
5:25 am to 8:00 am.



Timeline Race

Challenge Cards 2

13

13. Find the finish time:
12:50 pm + 45 minutes.



Timeline Race

Challenge Cards 2

14

14. Find the finish time:
7:48 pm + 3 hours 17 minutes.



Timeline Race

Challenge Cards 2

15

15. Find the start time:
finish 2:25 pm,
duration 55 minutes.



Timeline Race

Challenge Cards 2

16

16. Find the start time:
finish 12:15 am,
duration 2 hours 40 minutes.



Timeline Race - How to Play



1. Place all counters on START.



2. On your turn, pick one challenge card.

3. Show your working and explain your strategy.

4. A correct answer moves you 2 spaces.

5. The first player to reach FINISH wins.



Teacher Answer Key

1. 1 h 5 min	9. 3 h 14 min
2. 1 h 26 min	10. 2 h 43 min
3. 1 h 35 min	11. 2 h 29 min
4. 2 h 46 min	12. 2 h 35 min
5. 8:35 pm	13. 1:35 pm
6. 12:45 am	14. 11:05 pm
7. 1:45 pm	15. 1:30 pm
8. 7:15 am	16. 9:35 pm



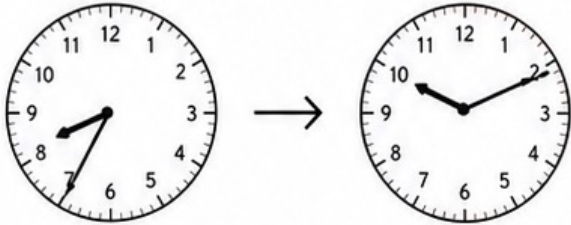
Count On to Find Duration

Name: _____

Date: _____

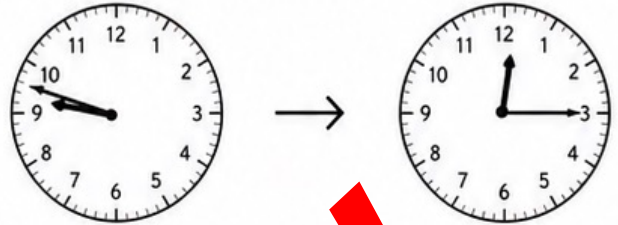
Count on from the start time to the finish time. Show your jumps, then write the elapsed time.

1. 8:35 am to 10:10 am



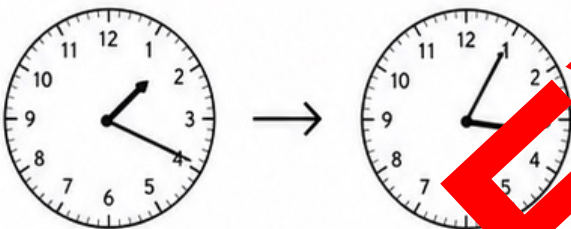
Elapsed time: _____

2. 9:48 am to 12:15 pm



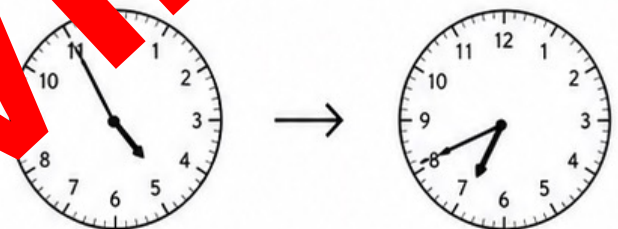
Elapsed time: _____

3. 1:20 pm to 3:05 pm



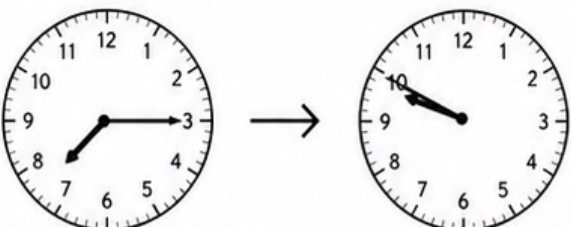
Elapsed time: _____

4. 5:55 pm to 7:40 pm



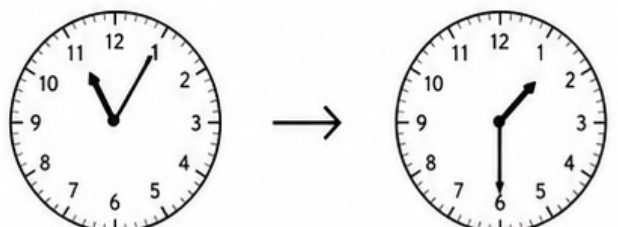
Elapsed time: _____

5. 7:15 am to 9:50 am



Elapsed time: _____

6. 11:05 am to 1:30 pm



Elapsed time: _____

Count On to Find Duration

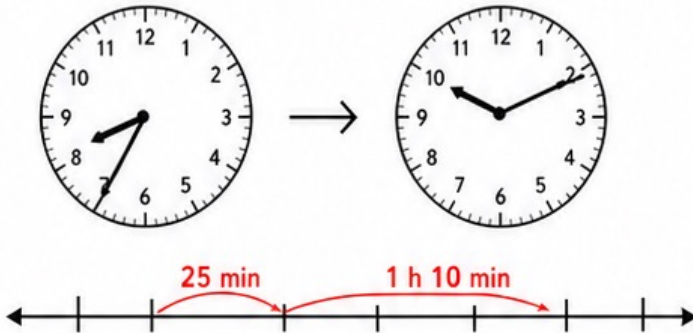
Page 1

Name: **ANSWERS**

Date: _____

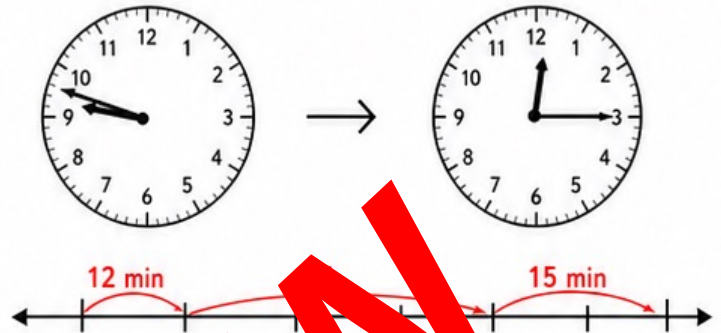
Count on from the start time to the finish time. Show your jumps, then write the elapsed time.

1. 8:35 am to 10:10 am



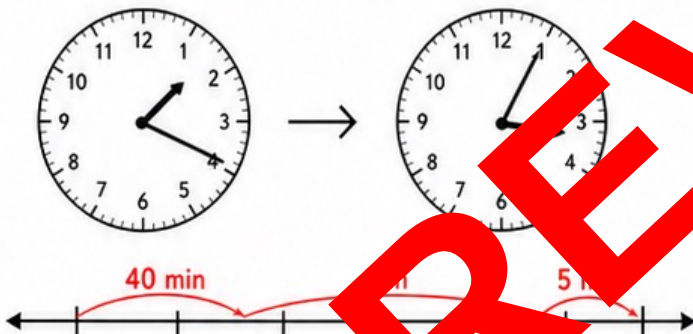
Elapsed time: **1 h 35 min**

2. 9:48 am to 12:15 pm



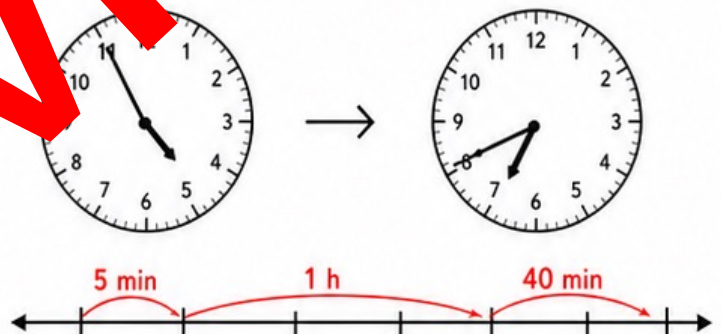
Elapsed time: **2 h 27 min**

3. 1:20 pm to 3:05 pm



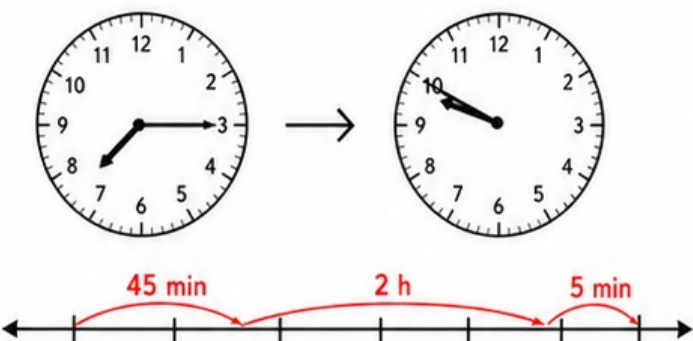
Elapsed time: **1 h 45 min**

4. 11:55 pm to 1:40 pm



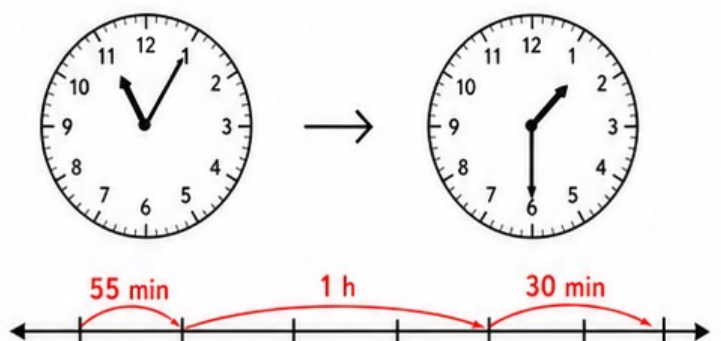
Elapsed time: **1 h 45 min**

5. 7:15 am to 9:50 am



Elapsed time: **2 h 35 min**

6. 11:05 am to 1:30 pm



Elapsed time: **2 h 25 min**

Count On to Find Duration

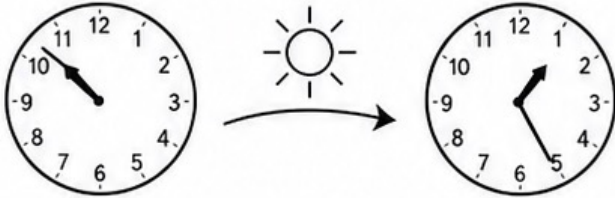
Page 2: Crossing Noon and Midnight

Name: _____

Date: _____

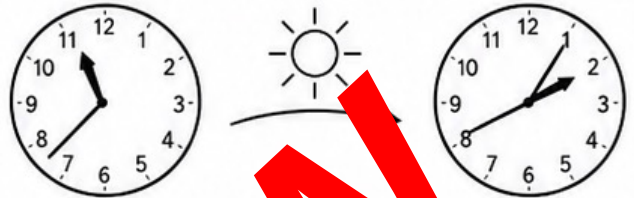
Track am and pm carefully. Count across noon or midnight when needed.

1. 10:50 am to 1:25 pm



Elapsed time: _____

2. 11:38 am to 2:07 pm



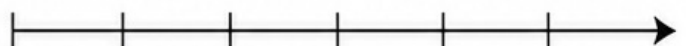
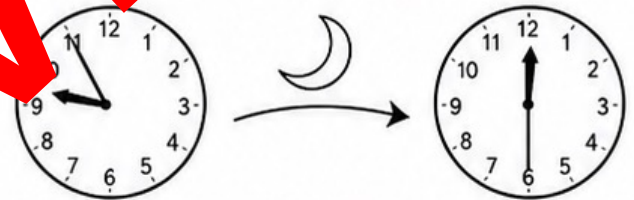
Elapsed time: _____

3. 11:45 pm to 1:20 am



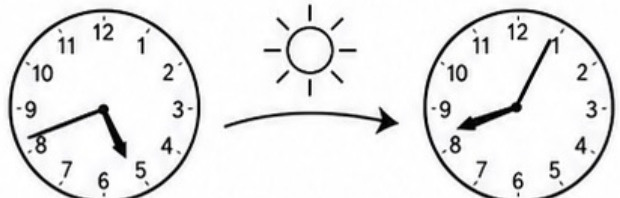
Elapsed time: _____

4. 11:45 pm to 12:30 am



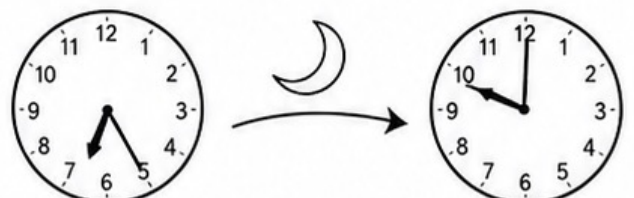
Elapsed time: _____

5. 5:40 am to 8:15 am



Elapsed time: _____

6. 6:25 pm to 10:00 pm



Elapsed time: _____

Count On to Find Duration

Page 2: Crossing Noon and Midnight

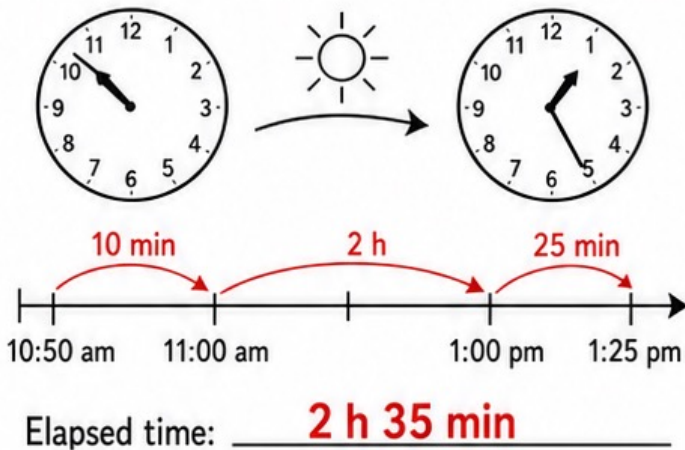
Name: _____

ANSWERS

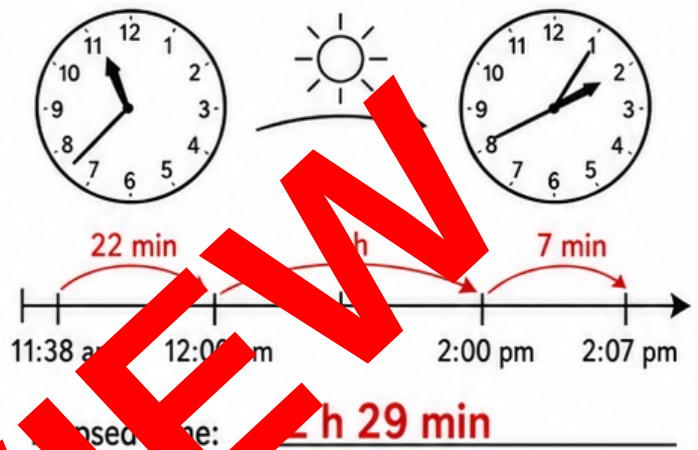
Date: _____

Track am and pm carefully. Count across noon or midnight when needed.

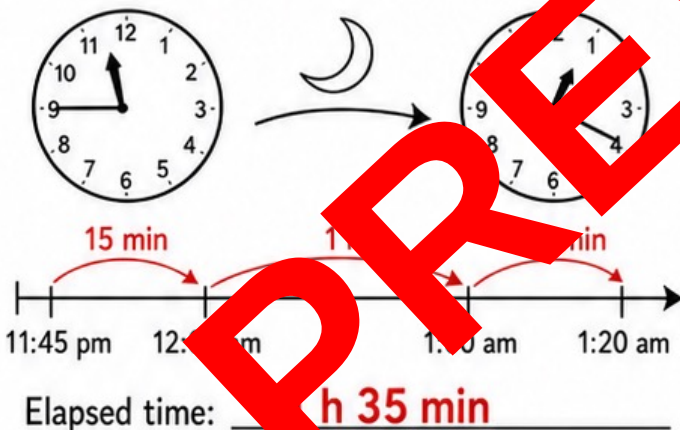
1. 10:50 am to 1:25 pm



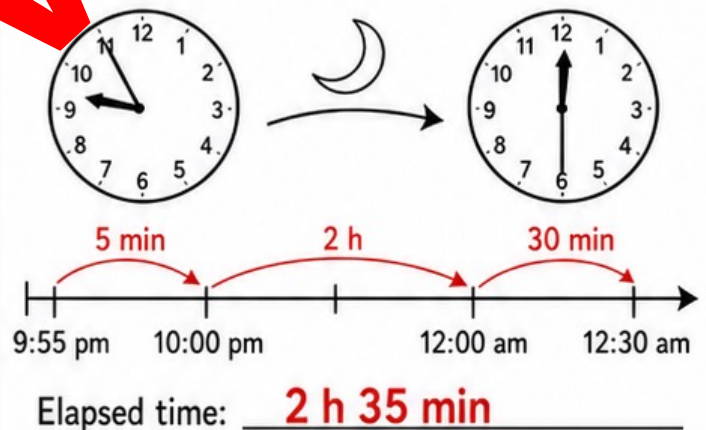
2. 11:38 am to 2:07 pm



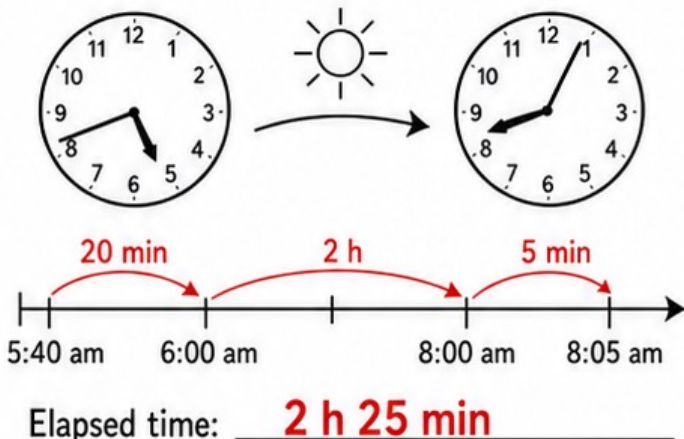
3. 11:45 pm to 1:20 am



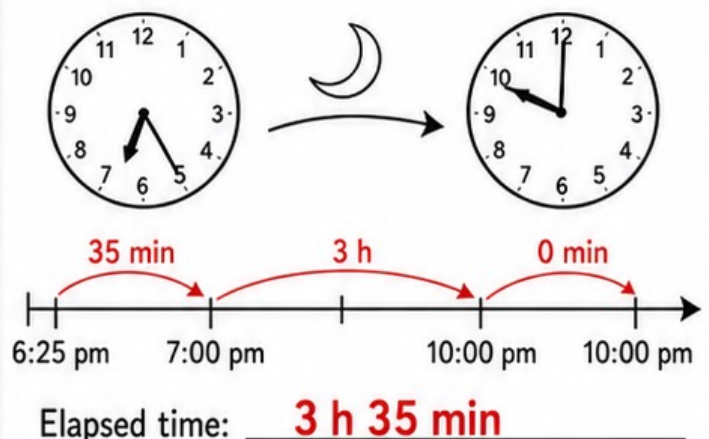
4. 9:55 pm to 12:30 am



5. 5:40 am to 8:05 am



6. 6:25 pm to 10:00 pm



Find the Finish Time

Name: _____

Date: _____

Add the duration to each start time. Show your jumps or working, then write the finish time.

1.

Start: 8:25 am

Duration: 1 h 40 min



Finish time: _____

2.

Start: 11:35 am

Duration: 2 h 55 min



Finish time: _____

3.

Start: 2:48 pm

Duration: 1 h 37 min



Finish time: _____

4.

Start: 9:50 pm

Duration: 2 h 25 min



Finish time: _____

5.

Start: 6:15 am

Duration: 3 h 50 min



Finish time: _____

6.

Start: 4:42 pm

Duration: 55 min



Finish time: _____

Find the Finish Time

Name: ANSWERS

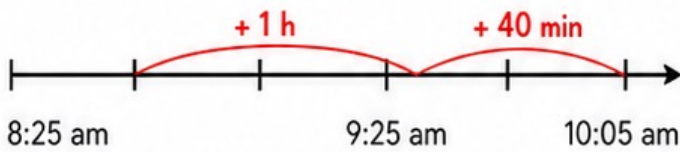
Date: _____

Add the duration to each start time. Show your jumps or working, then write the finish time.

1.

Start: 8:25 am

Duration: 1 h 40 min

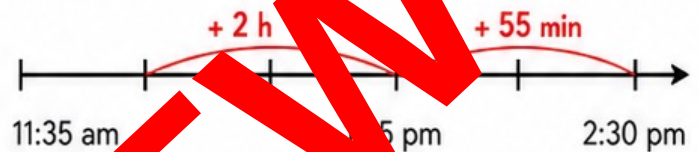


Finish time: 10:05 am

2.

Start: 11:35 am

Duration: 2 h 55 min

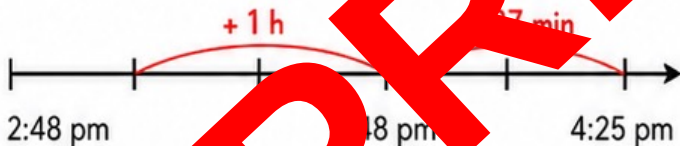


Finish time: 2:30 pm

3.

Start: 2:48 pm

Duration: 1 h 37 min



Finish time: 4:25 pm

4.

Start: 9:50 pm

Duration: 2 h 25 min

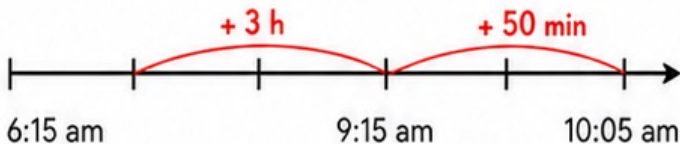


Finish time: 12:15 am

5.

Start: 6:15 am

Duration: 3 h 50 min

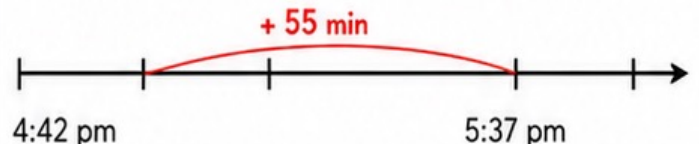


Finish time: 10:05 am

6.

Start: 4:42 pm

Duration: 55 min



Finish time: 5:37 pm

Find the Start Time

Name: _____

Date: _____

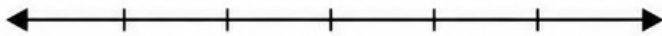
Count back the duration from each finish time. Show your jumps or working, then write the start time.

1.



Finish: 10:20 am

Duration: 1 h 45 min



Start time: _____

2.



Finish: 3:15 pm

Duration: 2 h 28 min



Start time: _____

3.



Finish: 12:10 am

Duration: 1 h 5 min



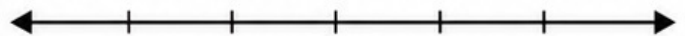
Start time: _____

4.



Finish: 8:05 pm

Duration: 3 h 50 min



Start time: _____

5.



Finish: 7:40 am

Duration: 55 min



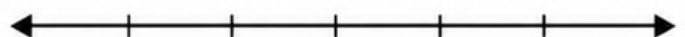
Start time: _____

6.



Finish: 5:32 pm

Duration: 2 h 47 min



Start time: _____

Find the Start Time

Name: ANSWERS

Date: _____

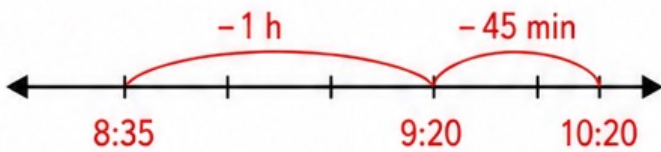
Count back the duration from each finish time. Show your jumps or working, then write the start time.

1.



Finish: 10:20 am

Duration: 1 h 45 min

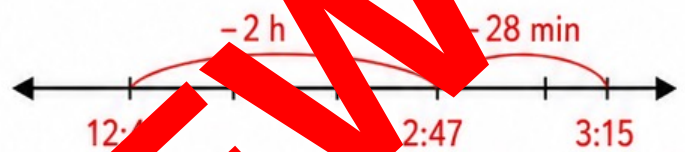
Start time: 8:35 am

2.



Finish: 3:15 pm

Duration: 2 h 28 min

Start time: 12:47 pm

3.



Finish: 12:10 am

Duration: 1 h 45 min

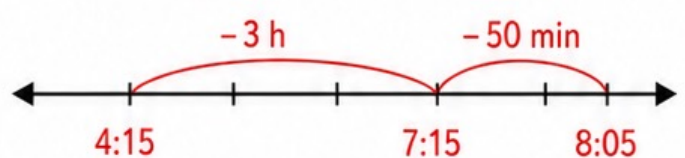
Start time: 10:35 pm

4.



Finish: 8:05 pm

Duration: 3 h 50 min

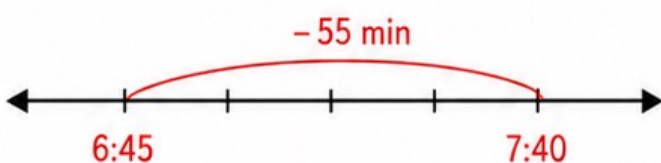
Start time: 4:15 pm

5.



Finish: 7:40 am

Duration: 55 min

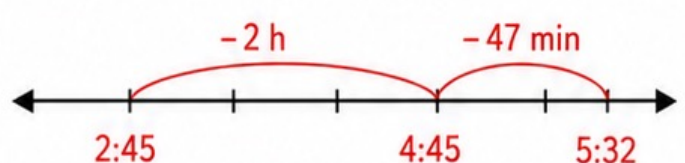
Start time: 6:45 am

6.



Finish: 5:32 pm

Duration: 2 h 47 min

Start time: 2:45 pm



Timetable Detective



Name: _____

Date: _____

Use the museum timetable to solve each elapsed-time question. Show your working.

Time	Event
8:45 am	Bus departs school
9:20 am	Arrive at museum
9:35 am	Planetarium starts
10:25 am	Planetarium ends
10:45 am	Workshop starts
12:05 pm	Workshop ends; lunch begins
12:50 pm	Gallery trail starts
2:15 pm	Bus departs museum
2:55 pm	Return to school

- How long is the morning bus journey?

- How long does the class wait before the planetarium starts?

- How long is the planetarium session?

- How much time is there between the planetarium ending and the workshop starting?

- How long is the workshop?

- How long is lunch?

- How long does the full trip last, from leaving school to returning?



Timetable Detective



Name: ANSWERS

Date: _____

Use the museum timetable to solve each elapsed-time question. Show your working.

Time	Event
8:45 am	Bus departs school
9:20 am	Arrive at museum
9:35 am	Planetarium starts
10:25 am	Planetarium ends
10:45 am	Workshop starts
12:05 pm	Workshop ends; lunch begins
12:50 pm	Gallery trail starts
2:15 pm	Bus departs museum
2:55 pm	Return to school

- How long is the morning bus journey?
35 min
- How long does the class wait before the planetarium starts?
15 min
- How long is the planetarium session?
50 min
- How much time is there between the planetarium ending and the workshop starting?
20 min
- How long is the workshop?
1 h 20 min
- How long is lunch?
45 min
- How long does the full trip last, from leaving school to returning?
6 h 10 min



Build a Day Plan



Name: _____

Date: _____

The learning expo starts at 9:00 am and must finish at 3:00 pm.

Complete the start and finish times in order. The durations fill the whole day.

Activity	Duration	Start	Finish
Welcome	15 min	9:00 am	_____
Session A	1 h 10 min	_____	_____
Transition	10 min	_____	_____
Recess	25 min	_____	_____
Session B	1 h 35 min	_____	_____
Transition	10 min	_____	_____
Lunch	45 min	_____	_____
Team challenge	1 h 10 min	_____	_____
Closing	20 min	_____	3:00 pm

1. Which activity is the longest?

2. Check: How many hours and minutes are scheduled altogether?



Build a Day Plan

Name: ANSWERS

Date: _____

The learning expo starts at 9:00 am and must finish at 3:00 pm.

Complete the start and finish times in order. The durations fill the whole day.

Activity	Duration	Start	Finish
Welcome	15 min	9:00 am	9:15 am
Session A	1 h 10 min	9:15 am	10:25 am
Transition	10 min	10:25 am	10:35 am
Recess	25 min	10:35 am	11:00 am
Session B	1 h 35 min	11:00 am	12:35 pm
Transition	10 min	12:35 pm	12:45 pm
Lunch	45 min	12:45 pm	1:30 pm
Team challenge	1 h 10 min	1:30 pm	2:40 pm
Closing	20 min	2:40 pm	3:00 pm

1. Which activity is the longest?

Session B (1 h 35 min)

2. Check: How many hours and minutes are scheduled altogether?

6 h

Multi-Step Elapsed Time

Name: _____

Date: _____

Solve each problem. Show the steps you use and label each answer with am or pm when needed.

1

A film session starts at 6:35 pm. There are 15 minutes of previews, then the film runs for 1 h 48 min. What time does the film finish?

Finish time: _____

2

A train leaves at 9:47 am. The first journey takes 2 h 15 min, the stopover takes 25 min, and the final journey takes 1 h 14 min. What time does the train arrive?

Arrival time: _____

3

Training starts at 4:20 pm. Warm-up lasts 25 min, skills practice lasts 50 min, a break lasts 10 min, and the game lasts 35 min. What time does training end?

End time: _____

4

Baking begins at 10:55 am. Preparation takes 35 min, baking takes 1 h 15 min, and cooling takes 40 min. When is the cake ready?

Ready at: _____

Multi-Step Elapsed Time

Name: ANSWERS

Date: _____

Solve each problem. Show the steps you use and label each answer with am or pm when needed.

1

A film session starts at 6:35 pm. There are 15 minutes of previews, then the film runs for 1 h 48 min. What time does the film finish?

$$6:35 \text{ pm} + 15 \text{ min} = 6:50 \text{ pm}$$

$$6:50 \text{ pm} + 1 \text{ h} = 7:50 \text{ pm}$$

$$7:50 \text{ pm} + 48 \text{ min} = 8:38 \text{ pm}$$

Finish time: 8:38 pm**2**

A train leaves at 9:47 am. The first journey takes 2 h 36 min, the stopover takes 25 min, and the final journey takes 1 h 14 min. What time does the train arrive?

$$9:47 \text{ am} + 2 \text{ h } 36 \text{ min} = 12:23 \text{ pm}$$

$$12:23 \text{ pm} + 25 \text{ min} = 12:48 \text{ pm}$$

$$12:48 \text{ pm} + 1 \text{ h } 14 \text{ min} = 2:02 \text{ pm}$$

Arrival time: 2:02 pm**3**

Training starts at 4:20 pm. Warm-up lasts 25 min, skills practice lasts 50 min, a break lasts 10 min, and the game lasts 35 min. What time does training end?

$$4:20 \text{ pm} + 25 \text{ min} = 4:45 \text{ pm}$$

$$4:45 \text{ pm} + 50 \text{ min} = 5:35 \text{ pm}$$

$$5:35 \text{ pm} + 10 \text{ min} = 5:45 \text{ pm}$$

$$5:45 \text{ pm} + 35 \text{ min} = 6:20 \text{ pm}$$

End time: 6:20 pm**4**

Baking begins at 10:55 am. Preparation takes 35 min, baking takes 1 h 15 min, and cooling takes 40 min. When is the cake ready?

$$10:55 \text{ am} + 35 \text{ min} = 11:30 \text{ am}$$

$$11:30 \text{ am} + 1 \text{ h } 15 \text{ min} = 12:45 \text{ pm}$$

$$12:45 \text{ pm} + 40 \text{ min} = 1:25 \text{ pm}$$

Ready at: 1:25 pm

Multi-Step Elapsed Time

Name: _____

Date: _____

Work through each situation carefully. Record both requested durations or times.

1

An excursion bus leaves at 7:55 am and arrives at 10:18 am.
A 25-minute rest stop is included.



Whole journey: _____

Driving time: _____

2

A concert starts at 7:25 pm. Act 1 lasts 48 min,
the interval lasts 20 min, and Act 2 lasts 1 h 5 min.



Total duration: _____

Finish time: _____

3

A two-part race starts at 1:42 pm. The first part lasts 38 min,
the break lasts 10 min, and the second part lasts 44 min.



Total duration: _____

Finish time: _____

4

A camp morning session runs from 8:50 am to 10:35 am.
The afternoon session runs from 12:40 pm to 3:05 pm.



Total active time: _____

Gap between sessions: _____

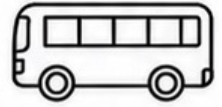
Multi-Step Elapsed Time

Name: ANSWERS

Date: _____

Work through each situation carefully. Record both requested durations or times.

- 1** An excursion bus leaves at 7:55 am and arrives at 10:18 am.
A 25-minute rest stop is included.



7:55 am to 10:18 am = 2 h 23 min
 Rest stop = 25 min
 Driving time = 2 h 23 min - 25 min = 1 h 58 min

Whole journey: 2 h 23 minDriving time: 1 h 58 min

- 2** A concert starts at 7:25 pm. Act 1 lasts 48 min,
the interval lasts 20 min, and Act 2 lasts 1 h 5 min.



Act 1 = 48 min
 Interval = 20 min
 Act 2 = 1 h 5 min = 65 min
 Total duration = 48 + 20 + 65 = 133 min = 2 h 13 min
 Finish time = 7:25 pm + 2 h 13 min = 9:38 pm
 Total duration: 2 h 13 min Finish time: 9:38 pm

- 3** A two-part race starts at 11:42 am. The first part lasts 38 min,
the break lasts 12 min, and the second part lasts 44 min.



First part = 38 min
 Break = 12 min
 Second part = 44 min
 Total duration = 38 + 12 + 44 = 94 min = 1 h 34 min
 Finish time = 11:42 am + 1 h 34 min = 1:16 pm
 Total duration: 1 h 34 min Finish time: 1:16 pm

- 4** A camp morning session runs from 8:50 am to 10:35 am.
The afternoon session runs from 12:40 pm to 3:05 pm.



Morning session = 10:35 am - 8:50 am = 1 h 45 min
 Afternoon session = 3:05 pm - 12:40 pm = 2 h 25 min
 Total active time = 1 h 45 min + 2 h 25 min = 4 h 10 min
 Gap between sessions = 12:40 pm - 10:35 am = 2 h 5 min

Total active time: 4 h 10 minGap between sessions: 2 h 5 min



Elapsed Time Mixed Review



Name: _____

Date: _____

Solve each question. Show working where needed and include am or pm.

1. Find the duration from 7:35 am to 9:20 am.



Working:

.....

.....

.....

.....

Answer: _____

2. Find the duration from 11:48 am to 1:15 pm.



Working:

.....

.....

.....

.....

Answer: _____

3. Start 3:25 pm; duration 2 h 40 min.
Find the finish time.



Working:

.....

.....

.....

.....

Answer: _____

4. Finish 10:10 am; duration 1 h 55 min.
Find the start time.



Working:

.....

.....

.....

.....

Answer: _____

5. Convert 135 minutes to hours and minutes.



Working:

.....

.....

.....

.....

Answer: _____

6. Convert 3 h 25 min to minutes.



Working:

.....

.....

.....

.....

Answer: _____

7. Add 2 h 20 min to 10:55 pm.



Working:

.....

.....

.....

.....

Answer: _____

8. Count back 3 h 15 min from 2:30 pm.



Working:

.....

.....

.....

.....

Answer: _____



Elapsed Time Mixed Review

Page 1



Name: ANSWERS

Date: _____

Solve each question. Show working where needed and include am or pm.

1. Find the duration from 7:35 am to 9:20 am.



Working:

$$9:20 - 7:35$$

$$20 \text{ min} - 35 \text{ min} = -15 \text{ min} \rightarrow \text{borrow 1 h}$$

$$(8 - 7 = 1 \text{ h})$$

$$60 + 20 - 35 = 45 \text{ min}$$

$$1 \text{ h } 45 \text{ min}$$

Answer: 1 h 45 min

2. Find the duration from 11:48 am to 1:15 pm.



Working:

$$1:15 \text{ pm} = 13:15$$

$$13:15 - 11:48$$

$$15 \text{ min} - 48 \text{ min} = -33 \text{ min} \rightarrow \text{borrow 1 h}$$

$$(12 - 11 = 1 \text{ h})$$

$$60 + 15 - 48 = 27 \text{ min}$$

$$1 \text{ h } 27 \text{ min}$$

Answer: 1 h 27 min

3. Start 3:25 pm; duration 2 h 40 min.
Find the finish time.



Working:

$$3:25 \text{ pm} + 2 \text{ h} = 5:25 \text{ pm}$$

$$5:25 \text{ pm} + 40 \text{ min} = 6:05 \text{ pm}$$

Answer: 6:05 pm

4. Finish 9:10 am; duration 1 h 55 min.
Find the start time.



Working:

$$9:10 \text{ am} - 1 \text{ h} = 8:10 \text{ am}$$

$$8:10 \text{ am} - 55 \text{ min} = 7:15 \text{ am}$$

Answer: 7:15 am

5. Convert 135 minutes to hours and minutes.



Working:

$$135 \div 60 = 2 \text{ r } 15$$

$$2 \text{ hours, } 15 \text{ minutes}$$

Answer: 2 h 15 min

6. Convert 3 h 25 min to minutes.



Working:

$$3 \text{ h} = 3 \times 60 = 180 \text{ min}$$

$$180 \text{ min} + 25 \text{ min} = 205 \text{ min}$$

Answer: 205 min

7. Add 2 h 20 min to 10:55 pm.



Working:

$$10:55 \text{ pm} + 2 \text{ h} = 12:55 \text{ am}$$

$$12:55 \text{ am} + 20 \text{ min} = 1:15 \text{ am}$$

Answer: 1:15 am

8. Count back 3 h 15 min from 2:30 pm.



Working:

$$2:30 \text{ pm} - 3 \text{ h} = 11:30 \text{ am}$$

$$11:30 \text{ am} - 15 \text{ min} = 11:15 \text{ am}$$

Answer: 11:15 am

Reason, Check and Challenge

Name: _____

Date: _____

Decide, calculate and explain. Show enough working to prove each answer.

- 1** Kim says the duration from 8:45 am to 10:20 am is 2 h 35 min.
Is Kim correct? Find the correct duration and explain the error.



Correct duration:

Explain the error: _____

- 2** A bus leaves at 1:28 pm. The journey lasts 1 h 47 min.
Sam says it arrives at 3:05 pm. Check Sam's answer and
give the correct arrival time.



Correct arrival time:

- 3** Morning practice runs from 9:50 am to 11:15 am.
Afternoon practice runs from 12:40 pm to 2:05 pm.
Find the total practice time.



Total practice time:

- 4** A task finishes at 6:10 pm after 2 h 35 min.
The total includes a 20-minute break.
Find the start time and the actual working time.



Start time:

Actual working time:

Reason, Check and Challenge

Name: ANSWERS

Date: _____

Decide, calculate and explain. Show enough working to prove each answer.

- 1** Kim says the duration from 8:45 am to 10:20 am is 2 h 35 min.
Is Kim correct? Find the correct duration and explain the error.



Correct duration: **1 h 35 min.**

Explain the error: **No. Kim added an extra hour.**

- 2** A bus leaves at 1:28 pm. The journey lasts 1 h 47 min.
Sam says it arrives at 3:05 pm. Check Sam's answer and
give the correct arrival time.



Sam is not correct.

Correct arrival time: **3:15 pm.**

- 3** Morning practice runs from 9:50 am to 11:15 am.
Afternoon practice runs from 12:40 pm to 2:05 pm.
Find the total practice time.



1 h 25 min + 1 h 25 min = 2 h 50 min.

Total practice time: **2 h 50 min.**

- 4** A task finishes at 6:10 pm after 2 h 35 min.
The total includes a 20-minute break.
Find the start time and the actual working time.



Start time: **3:35 pm.**

Actual working time: **2 h 15 min.**

Elapsed Time Assessment

Student: _____

Date: _____



Use the sports carnival timetable to answer every question. Show working and include units.



Time	Event
8:30 am	Opening
8:50 am	100 m heats start
9:35 am	100 m heats end
9:50 am	Long jump starts
11:05 am	Long jump ends
11:20 am	Relay starts
12:00 pm	Relay ends; lunch begins
12:45 pm	High jump starts
2:10 pm	High jump ends
2:25 pm	Presentations start
3:00 pm	Carnival finishes

- How long does the 100 m heats last? _____
- How long is the break before long jump? _____
- How long does long jump last? _____
- How long does the relay last? _____
- How long is lunch? _____
- How long does high jump last? _____
- How long do the presentations last? _____
- How long is the full carnival, from opening to finish? _____

Elapsed Time Assessment

Student: ANSWERS

Date: _____



Use the sports carnival timetable to answer every question. Show working and include units.



Time	Event
8:30 am	Opening
8:50 am	100 m heats start
9:35 am	100 m heats end
9:50 am	Long jump starts
11:05 am	Long jump ends
11:20 am	Relay starts
12:00 pm	Relay ends; lunch begins
12:45 pm	High jump starts
2:10 pm	High jump ends
2:25 pm	Presentations start
3:00 pm	Carnival finishes

- How long does the 100 m heats last? 45 min
- How long is the break before long jump? 15 min
- How long does long jump last? 1 h 15 min
- How long does the relay last? 40 min
- How long is lunch? 45 min
- How long does high jump last? 1 h 25 min
- How long do the presentations last? 35 min
- How long is the full carnival, from opening to finish? 6 h 30 min

Elapsed Time Assessment

Student: _____

Date: _____

Complete all questions. Show clear calculations and include am or pm when needed.

- 1** A soccer clinic ends at 1:35 pm after 2 h 20 min.
Find its start time.



Working:

Answer: _____

- 2** An art session starts at 10:48 am and lasts 1 h 37 min.
Find its finish time.



Working:

Answer: _____

- 3** Find the duration from 9:55 pm to 12:20 am.



Working:

Answer: _____

- 4** A bus leaves at 6:00 am and travels for 3 h 28 min.
Find its arrival time.



Working:

Answer: _____

- 5** Convert 245 minutes to hours and minutes.



Working:

Answer: _____

- 6** Convert 2 h 47 min to minutes.



Working:

Answer: _____

- 7** Two sessions last 1 h 35 min and 2 h 25 min.
Find the total duration.



Working:

Answer: _____

- 8** Lee says the duration from 7:50 am to 9:15 am is 2 h 25 min.
Is Lee correct?
Give the correct duration.



Working:

Answer: _____

Elapsed Time Assessment

Student: ANSWERS

Date: _____

Complete all questions. Show clear calculations and include *am* or *pm* when needed.

- 1** A soccer clinic ends at 1:35 pm after 2 h 20 min.
Find its start time.



Working:

$$1:35 \text{ pm} - 2 \text{ h} = 11:35 \text{ am}$$

$$11:35 \text{ am} - 20 \text{ min} = 11:15 \text{ am}$$

Answer: 11:15 am

- 2** An art session starts at 10:48 am and lasts 1 h 37 min.
Find its finish time.



Working:

$$10:48 \text{ am} + 1 \text{ h} = 11:48 \text{ am}$$

$$11:48 \text{ am} + 37 \text{ min} = 12:25 \text{ pm}$$

Answer: 12:25 pm

- 3** Find the duration from 9:55 pm to 12:20 am.



Working:

$$9:55 \text{ pm to } 12:00 \text{ am} = 2 \text{ h } 5 \text{ min}$$

$$12:00 \text{ am to } 12:20 \text{ am} = 20 \text{ min}$$

$$\text{Total} = 2 \text{ h } 25 \text{ min}$$

Answer: 2 h 25 min

- 4** A bus leaves at 6:42 am and travels for 3 h 28 min.
Find its arrival time.



Working:

$$6:42 \text{ am} + 3 \text{ h} = 9:42 \text{ am}$$

$$9:42 \text{ am} + 28 \text{ min} = 10:10 \text{ am}$$

Answer: 10:10 am

- 5** Convert 245 minutes to hours and minutes.



Working:

$$245 \div 60 = 4 \text{ remainder } 5$$

$$= 4 \text{ h } 5 \text{ min}$$

Answer: 4 h 5 min

- 6** Convert 2 h 47 min to minutes.



Working:

$$2 \text{ h} = 120 \text{ min}$$

$$120 \text{ min} + 47 \text{ min} = 167 \text{ min}$$

Answer: 167 min

- 7** Two sessions last 1 h 35 min and 2 h 25 min.
Find the total duration.



Working:

$$1 \text{ h } 35 \text{ min} + 2 \text{ h } 25 \text{ min}$$

$$= 3 \text{ h } 60 \text{ min}$$

$$= 4 \text{ h}$$

Answer: 4 h

- 8** Lee says the duration from 7:50 am to 9:15 am is 2 h 25 min.
Is Lee correct?
Give the correct duration.



Working:

$$7:50 \text{ am to } 9:00 \text{ am} = 1 \text{ h } 10 \text{ min}$$

$$9:00 \text{ am to } 9:15 \text{ am} = 15 \text{ min}$$

$$\text{Total} = 1 \text{ h } 25 \text{ min}$$

Answer: No – 1 h 25 min

Elapsed Time Rubric

Student: _____

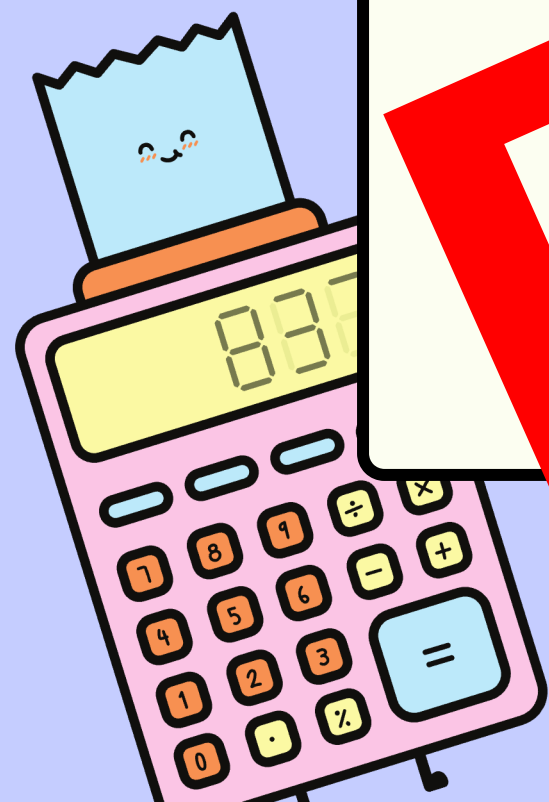
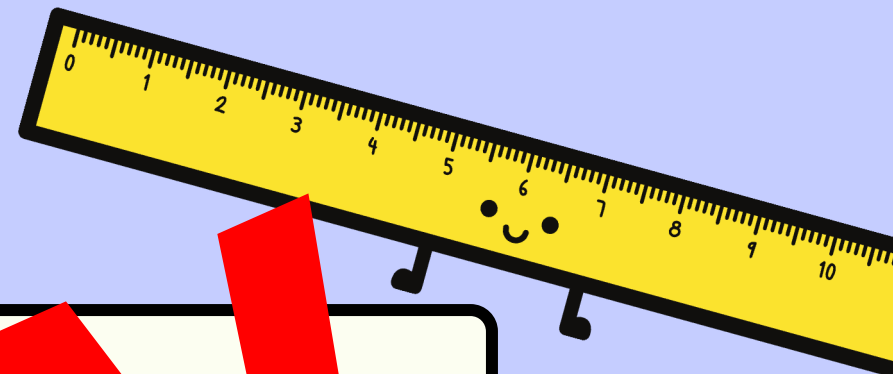
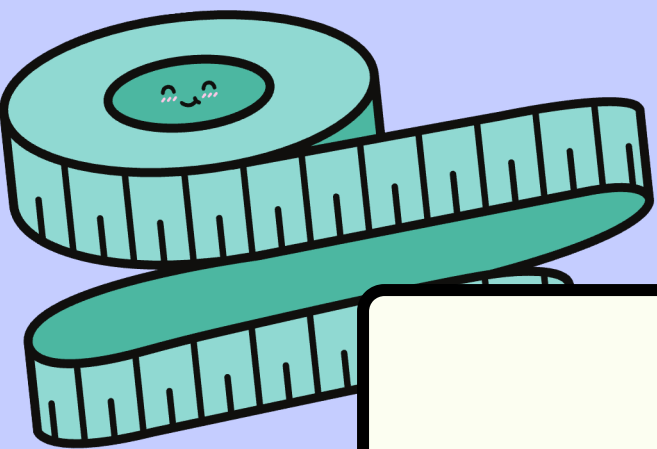
Date: _____

Circle and highlight the descriptor that best matches the evidence.

Criterion	1 Beginning	2 Developing	3 Achieving	4 Confident	5 Exceeding
1. Interprets time information	Needs support to identify relevant times.	Identifies some start and finish times.	Identifies relevant times accurately.	Interprets complex timetables and crossings.	Interprets and justifies complex time information.
2. Calculates elapsed time	Calculations are mostly incomplete.	Finds some durations with support.	Finds durations accurately.	Handles multi-step and boundary crossings.	Uses efficient, accurate strategies flexibly.
3. Finds unknown start or finish	Needs support to begin.	Solves simple missing-time tasks.	Finds start or finish times accurately.	Solves multi-step missing-time tasks.	Solves and verifies unfamiliar problems.
4. Explains reasoning	Working is unclear or missing.	Shows some relevant working.	Shows a clear method with units.	Explains each step in calculations.	Compares methods and justifies choices.
5. Checks and communicates	Rarely checks answers or labels units.	Sometimes checks and labels.	Checks answers and uses correct notation.	Uses estimates and inverse checks.	Communicates precise, convincing verification.

Overall level: _____

Teacher comment: _____



PREVIEW

Elapsed Time



Learning Goal

PREVIEW

We can learn to
identify start, finish and duration
for any missing time value
explain and check our strategy



What Is Elapsed Time

Elapsed time is how much time passes between two events.

START time passes → FINISH

The amount of time that passes is the DURATION.



The Time Triangle

Start + duration = finish

Finish - start = duration

Finish - duration = start

These relationships let us check.



Choose a Strategy

Count on using an open number line.

Partition into hours and minutes.

Start when the times align neatly.

Choose the clearest method.



Worked Example

8:35 am → 9:00 am = 25 min

9:00 am → 11:00 am = 2 h

11:00 am → 11:20 am = 20 min

total = 2 h 45 min



Cross an Hour Efficiency

9:48 am → 10:00 am = 12 min

10:00 am → 12:00 pm = 2 h

12:00 pm → 12:15 pm = 15 min

total = 2 h 27 min



Cross Noon or Midnight

Count to 1200 first

At noon: am changes to pm.

At midnight: pm changes to am.

Keep the day boundary in your jumps.



Find the Finish Time

FINISH = START + DURATION

Add hours first, then minutes.

Regroup 60 minutes as 1 hour.

Label the answer am or pm.



Worked Missing Finish

1:45 pm + 2 h = 3:45 pm

3:45 pm + 35 min = 4:20 pm

Finish time = 4:20 pm

Check: 1:45 pm $\rightarrow$ 4:20 pm = 2 h 35 min



Find the Start Time

START = FINISH - DURATION

Count back in useful jumps.

Cross hour boundaries carefully.

Check by adding the duration forward.



Worked Missing Start

10:10 am – 1 h = 9:10 am

10 am – 25 min = 8:45 am

Start time = 8:45 am

Check: 8:45 am + 1 h 25 min = 10:10 am



Regroup Mixed Units

60 minutes = 1 hour

3 h 40 min + 2 h 35 min

= 5 h 75 min

= 6 h 15 min



Read a Timetable

Read the event name first.

Locate the exact start and finish.

Count the time between them.

Include breaks only when the question asks.



Multi-Step Journeys

First leg: 1 h 0 min

Break: 15 min

Second leg: 55 min

Total trip = 2 h 30 min



Estimate First

Estimate before exact calculation.

8:55 a.m. to 12:10 p.m. is a little over 3 h.

Exact time: 3 h 15 min.

Answer near 4 h would not be reasonable.



Avoid Common Mistakes

Check for these common mistakes:

misusing am and pm

ignoring noon and midnight

leaving minutes above 59

subtracting in the wrong direction



Guided Practice

10:55 am to 1:30 pm

June to 11:00, then 1:00, then 1:00.

What is the total duration?

Explain why your answer is reasonable.



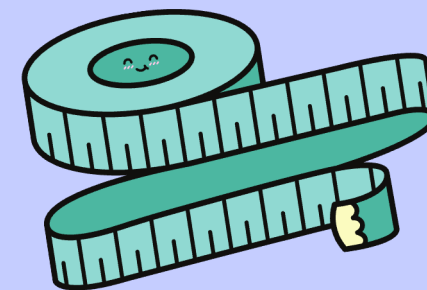
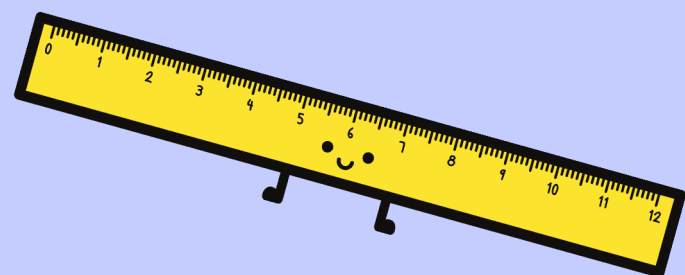
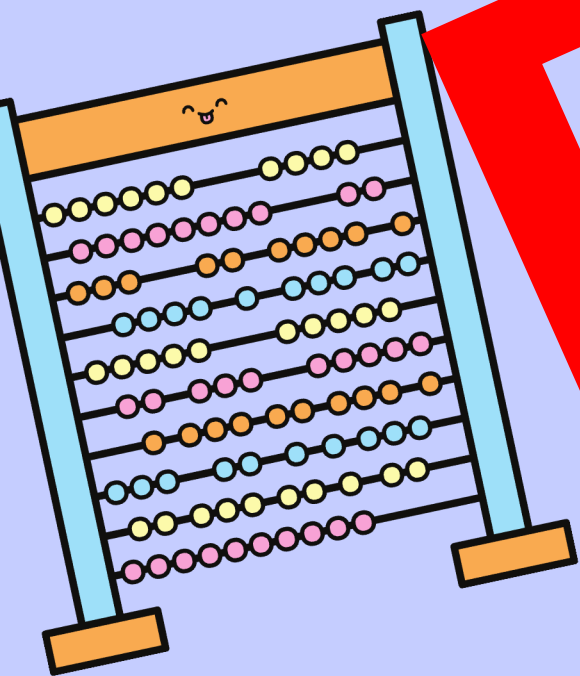
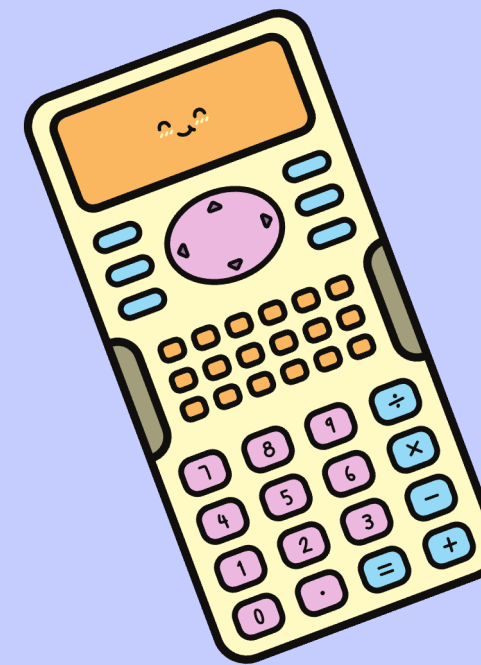
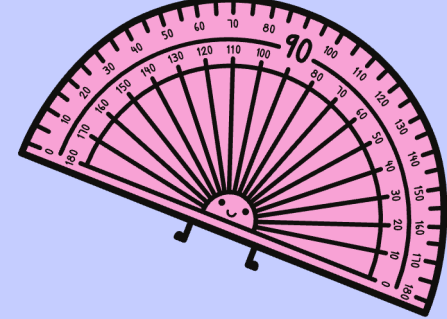
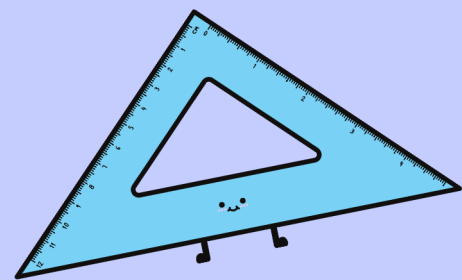
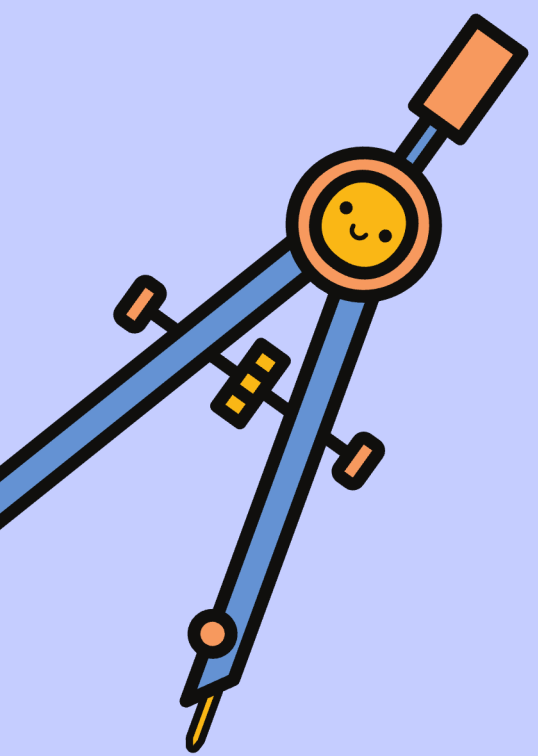
Exit Challenge

A workshop finishes at 10:05 a.m.
Its duration is 2 h 38 min.

Find the start time.

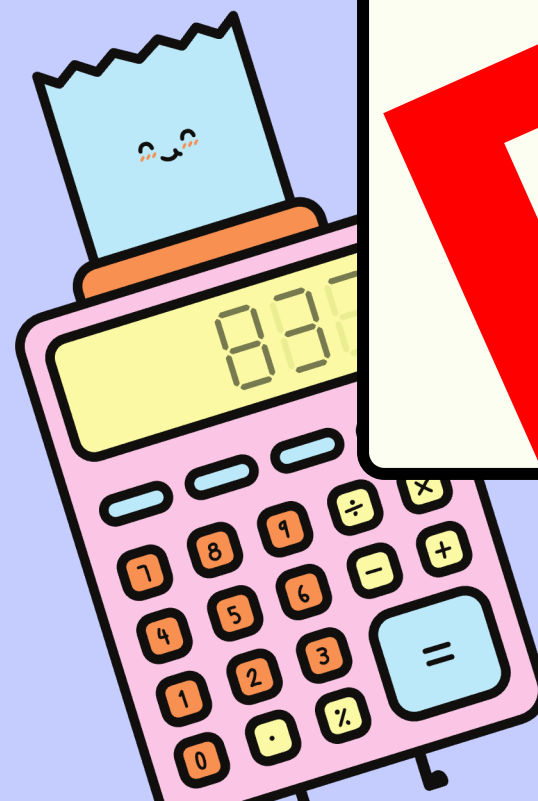
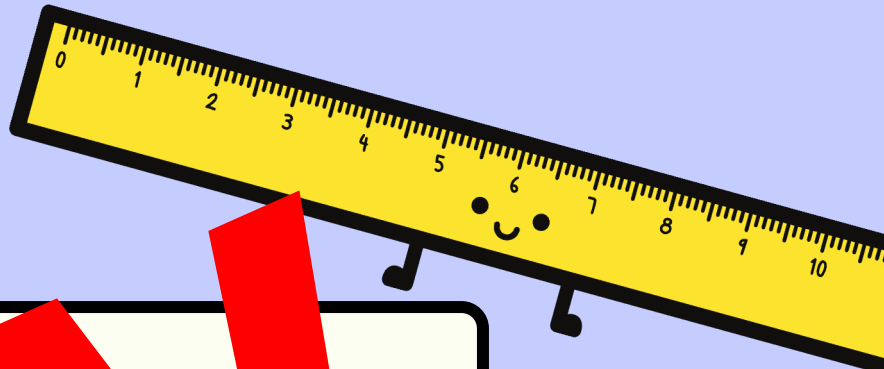
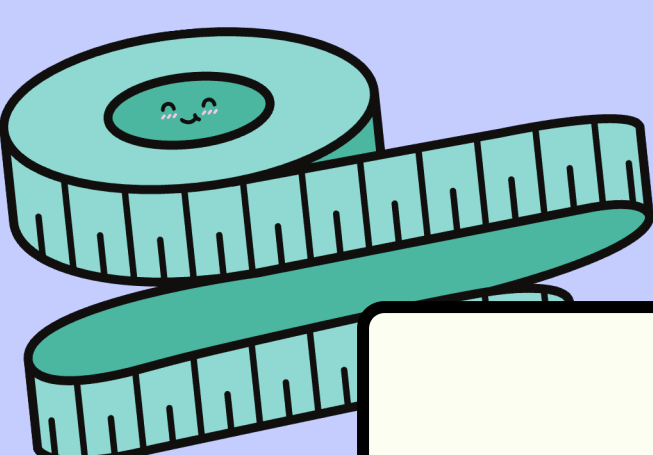
Then add forward to check.





Well Done!

PREVIEW



PREVIEW

Elapsed Time

Quiz

A cartoon character of a notepad with a face, wearing a blue graduation cap and holding a yellow pencil, is positioned in the bottom-right corner of the central white box.

Question 1

What does elapsed time mean?

A. The time shown on a clock

B. The time between start and finish

C. The number of minutes in an hour

D. A time before midday



Answer 1

PREVIEW

Elapsed time is the amount of time that passes between a start time and a finish time.



Question 2

PREVIEW

True or false?

45 min to 10:05 am is 1 h 20 min.



Answer 2

PREVIEW

TRUE
8:45 am $\rightarrow$ 9:45 am = 1 h
9:45 am $\rightarrow$ 10:05 am = 20 min
total = 1 h 20 min



Question 3

PREVIEW

Show answer

Find the duration from 8 am to 11:12 am.

Show your jumps.



Answer 3

9:38 am $\rightarrow$ 10:00 am = 22 min

10:00 am $\rightarrow$ 11:00 am = 1 h

11:00 am $\rightarrow$ 11:12 am = 12 min

Answer = 1 h 34 min



Question 4

What is 1:25 pm + 2 h 10 min?

- A. 1:15 pm
- B. 4:05 pm
- C. 4:15 pm
- D. 4:25 pm



Answer 4

Correct answer: — 4. pm

1:25 pm + 2 h = 3:25 pm

3:25 pm + 50 min = 4:15 pm



Question 5

PREVIEW

True or false?

11:00 am + 35 min = 12:25 pm.



Answer 5

PREVIEW

TRUE
1:50 am $\rightarrow$ 12:00 am = 10 min

12:00 pm $\rightarrow$ 12:25 pm = 25 min

Total = 35 min



Question 6

Start and end times of a session are given below.
The session finishes at 7:40 pm.
The duration is 1 h 55 min.
What time did it start?



Answer 6

PREVIEW

7:30 pm - 1 h = 6:40 pm

6:40 pm - 55 min = 5:45 pm

Start time = 5:45 pm



Question 7

Find the duration from 10:55 am to 1:20 am.

A. 1 h 25 min

B. 2 h 5 min

C. 2 h 25 min

D. 3 h 25 min



Answer 7

Correct answer: 0 - 2 h 5 min

10:00 pm → 12:00 am = 1 h 5 min

12:00 am → 1:20 am = 1 h 20 min



Question 8

True or false?

$$3 \text{ h } 40 \text{ min} + 2 \text{ h } 35 \text{ min} = 6 \text{ h } 15 \text{ min.}$$



Answer 8

PREVIEW

TRUE

$$3 \text{ h} + 2 \text{ h} = 5 \text{ h}$$

$$4 \text{ min} + 35 \text{ min} = 75 \text{ min} = 1 \text{ h } 15 \text{ min}$$

$$\text{total} = 6 \text{ h } 15 \text{ min}$$



Question 9

A library session runs from 9:15 am to 12:05 pm.

There is a 20-minute break.

How much learning time is there?



Answer 9

Whole session = 2 h 50 min

Break time = 20 min - 20 min

Answer = 2 h 30 min



Question 10

A bus leaves at 2:48 pm.

Travel takes 1 h 37 min, and a stop takes 15 min.

A. 4:25 pm B. 4:30 pm

C. 4:40 pm D. 4:55 pm



Answer 10

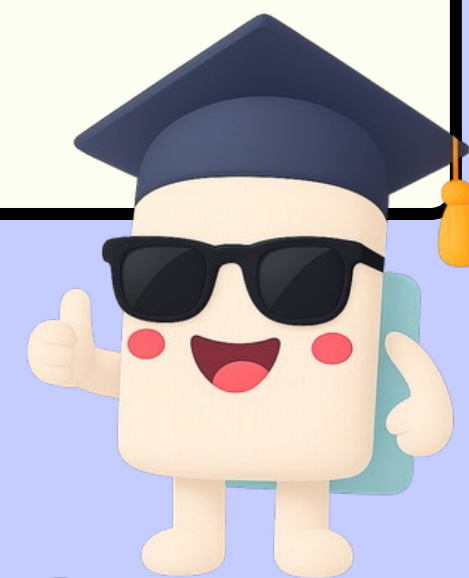
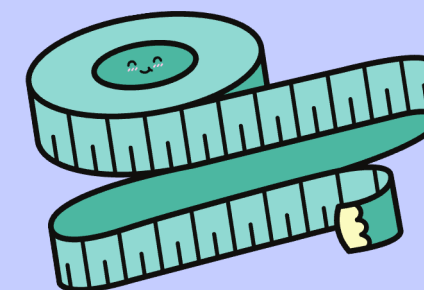
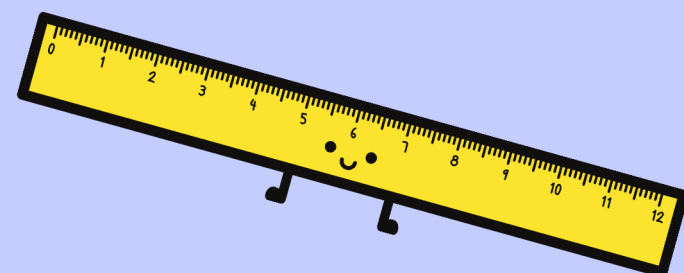
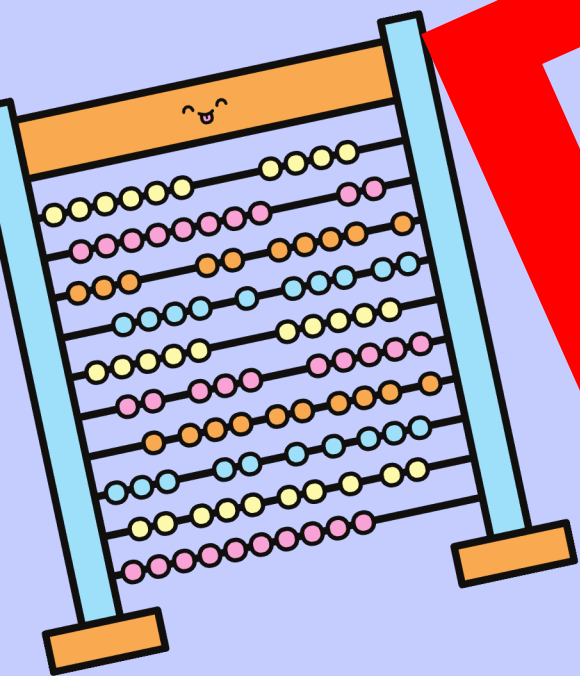
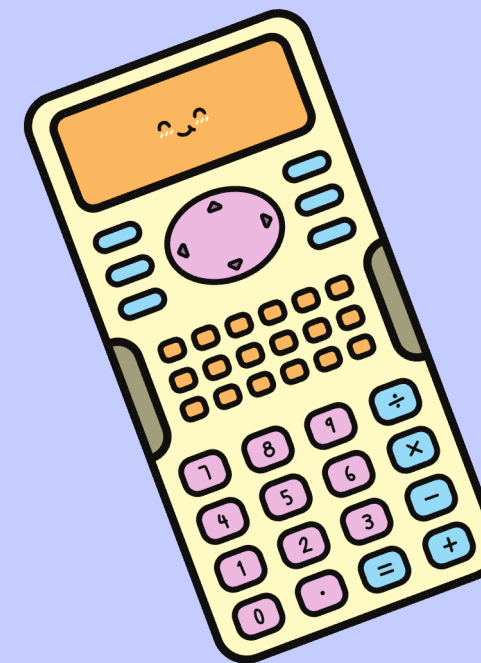
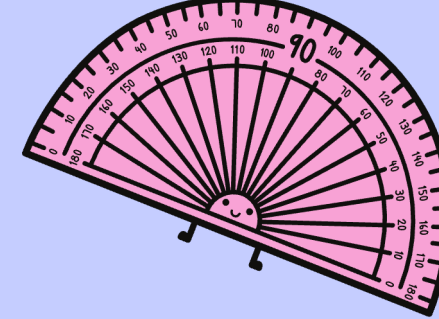
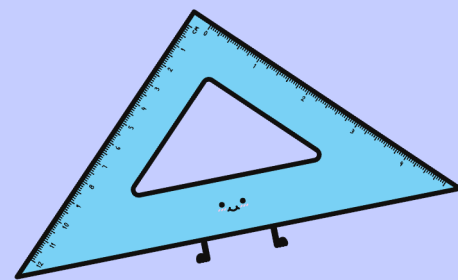
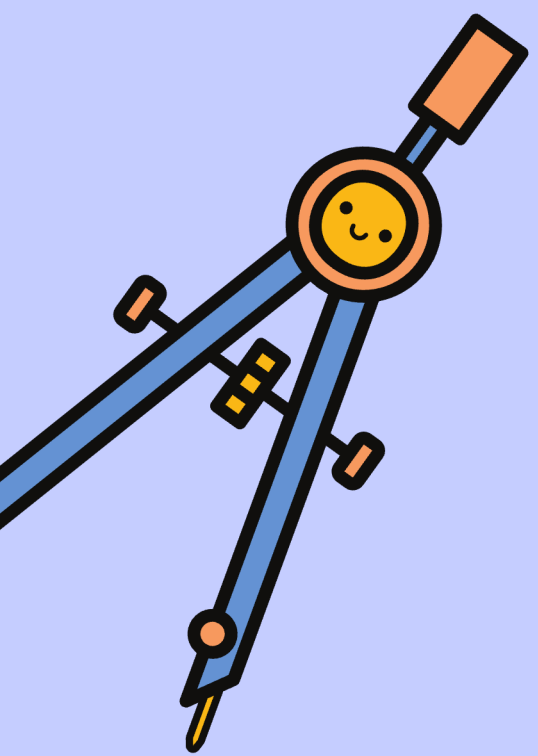
PREVIEW

Correct answer: — 4:15 pm

2:45 pm + 1 h 37 min = 4:25 pm

4:25 pm + 15 min = 4:40 pm





Well Done!

PREVIEW