Year 8 | Measurement

Time duration and time zones

Learn and practise | Free preview

A sample from this topic. The complete topic collection contains three different resources and worked solutions.

Read the explanation and worked example. Show your working; use a calculator only where asked.

What you will practise

• Calculate elapsed time across midnight and stated time-zone offsets.

• Explain a method and check the reasonableness of a result.

Useful starting skills: Use the prerequisite operations and representations shown in the worked example.

Convert 12-hour times carefully:12 am is 00:00 and 12 pm is 12:00. Crossing midnight requires tracking the next calendar day.

Use stated UTC offsets to compare time zones. Offsets in these exercises are supplied assumptions, not current travel advice; real offsets can change with daylight saving.

Worked example

A flight leaves a UTC+10 city at 22:30 and lasts 4 hours, landing in a UTC+8 city. Find local arrival.

Destination is 2 hours behind.

Arrival in origin time 02:30 next day; subtract 2 hours.

Answer: 00:30 next day

Try it yourself

Name: _____ Date: _____

1. Write 7:45 pm in 24-hour time.

2. Write 00:20 in 12-hour time.

Answers and explanations

Check the method as well as the final answer. An alternative correct method is also valid.

1. 19:45

Add 12 to the hour.

2. 12:20 am

It is 20 minutes after midnight.

Curriculum reference: VC2M8M04

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