



PASSING TIME

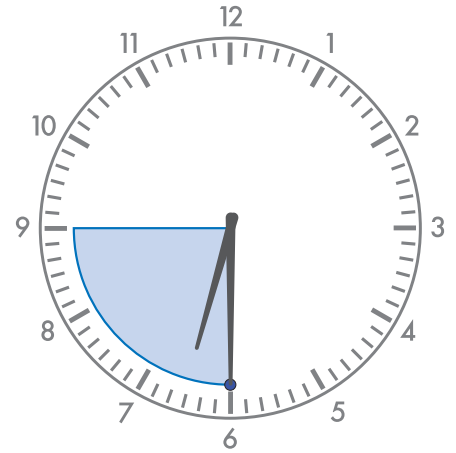


Passing Time

Reasoning behind the task

Calculating the amount of time that an event lasts is an important life skill. Many students struggle to determine elapsed time when noon or midnight is crossed, and particularly when the times are not on the hour or half hour. This task is set up so that the initial time has to be something like 6:42 or 7:38, and the final time is on the other side of the hour: e.g., 1:12 or 2:05. Because students are allowed to choose their own times, they can stick with multiples of 5 minutes or even half-hour intervals if that makes them more comfortable.

Students should be encouraged to use number lines or the clocks with moveable hands to help them calculate elapsed time.



Key questions

- How much time has passed if you move the hour hand from halfway between 6 and 7 to halfway between 7 and 8?
- What time would it be after 3 hours from your start?
- Why did the amount of time from start to end have to be more than 3 hours?
- What is the longest time it could have been? How do you know?
- How might you have set your clocks to make it $5\frac{1}{2}$ hours from start to end?
- Could the time have been 4 hours and 45 minutes? Explain.

Scaffolding learning

- Look at the clock faces. Draw the clock hands onto the shaded sections of the two clocks. Understand that drawing hands positioned on half hour intervals, or the clock numbers, will make finding the difference between the times easier. Challenge yourself by choosing times which are not on the clock numbers, e.g. 6:42, or 1:12
- Use number lines, or clocks with movable hands, to calculate the difference between the two clock times. Think about how you will move along your timeline/clock to calculate the time difference, e.g. counting in 5, 10, or 30 minute intervals. Think of methods for recording this accurately.

Challenge

Identify all the possible start and end times if the time passed was 6 hours and 22 minutes.

Passing Time

Curriculum coverage

- Measurement
- Compare and measure time
- 12-hour clocks

Expectations

All	Most	Some
<ul style="list-style-type: none">■ Set their clocks with hands on the 12 numbers of the clock, e.g. half hour intervals.■ Begin to describe the correct amount of time passed.	<ul style="list-style-type: none">■ Set their clocks with hands on the 12 numbers of the clock and correctly identify the amount of time that has passed.■ Identify the least and greatest amounts of possible time that have passed.	<ul style="list-style-type: none">■ Set their clock where the minute hand is not on the 12 numbers of the clock and correctly identify the amount of time that has passed.■ Identify start and end times so that requirements for particular elapsed times are met.

Passing Time

Draw hands to set the first clock to a start time where both hands are in the blue part of the clock.

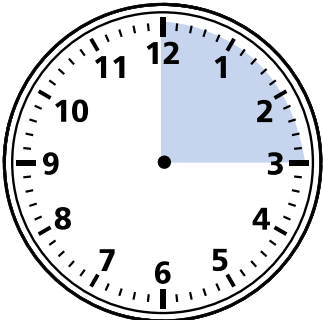
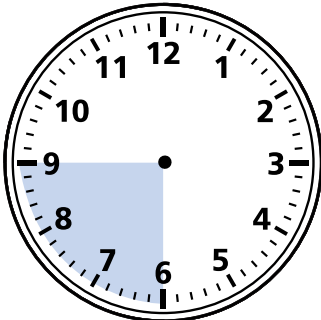
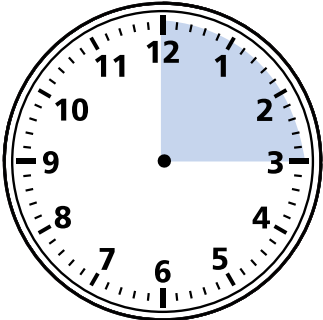
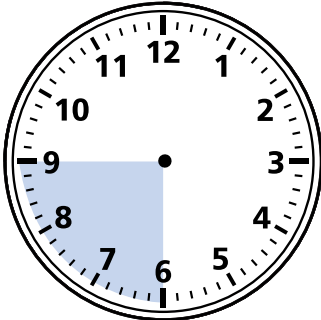
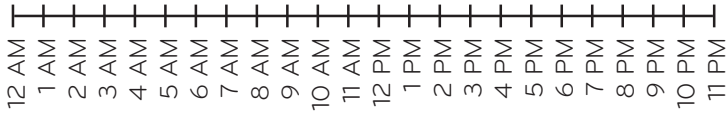
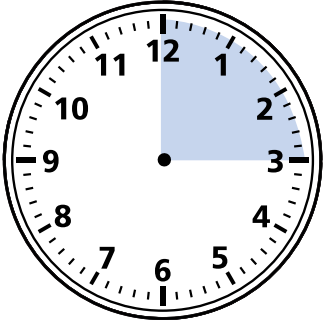
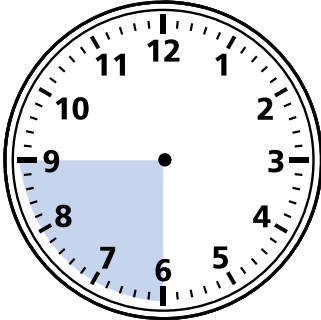
Draw hands to set the second clock to an end time where both hands are in the blue part of the clock.

Calculate how much time has passed between the first time and the second time.

Repeat with at least two different times.

START

END



Name _____