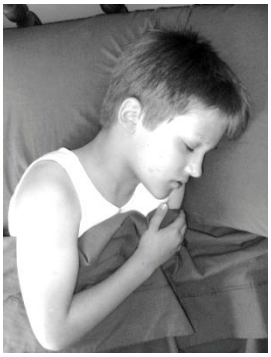
At-Home Investigation

Some activities take a long time and some are very short. Look at the pictures and decide which activities will take the most time and which ones will be the quickest.

Pick 5 activities to do today, and 5 more to do later this week from the pictures.
Time how long they take and record your findings below.
Write the activities you completed here in order from shortest to longest amount of time. Describe what you found. Record the time that you spent on each activity.

Less than a quarter of an hour	About half an hour
About three quarters of an hour	One hour or longer

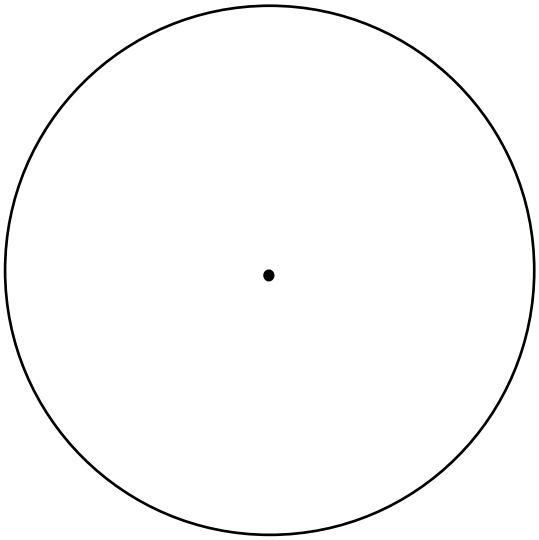
sleeping 	**writing a story** 	**combing hair** 	**brushing teeth** 
Watching one tv show 	**eating breakfast** 	**drinking milk** 	**cooking with my family** 
setting the table 	**tidying up** 	**making the bed** 	**riding a bike** 
running around outside 	**doing a puzzle** 	**playing a game** 	**reading a book** 

Tuesday: Connecting Lesson

Number focus: ***relative size with two-digit numbers*** **15-20 minutes**
You will need: printed copies of the number cards below and paper to record.

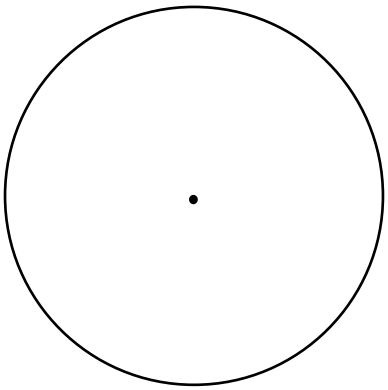
25	45	60
85	50	75

Connecting the hour hand

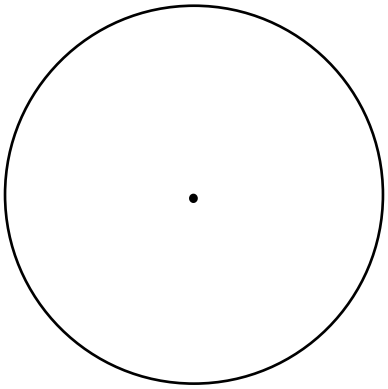


How a clock works
Draw the numbers on this clock face.
You might need to try a few times, so use a pencil.
Draw where the **hour hand** would point for 3:00.

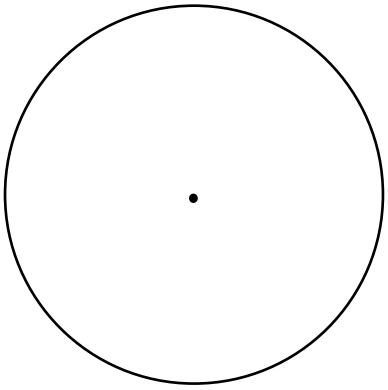
How will the hour hand move to get to 4 o'clock?
Think about this then answer the following questions:



Where might the **hour hand point** when it was half-past 3? How could you work it out?
Draw on the hour hand and explain what you did.



Where might the **hour hand** point when it was a quarter-past 5?
Draw on the hour hand and explain what you did.



Where might the **hour hand** point when it was a quarter to 7?
Draw on the hour hand and explain what you did.

Add in the minute hand in a different colour if you understand how that works.

F2. Half hours and quarter hours

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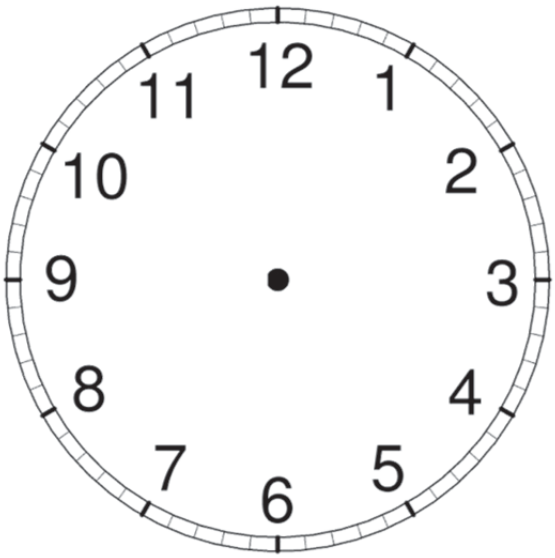
Work out how many minutes are in the following fractions of an hour.

1. Draw the **minute hand** on the clock below to show the start of an hour. How many minutes are there in an hour?

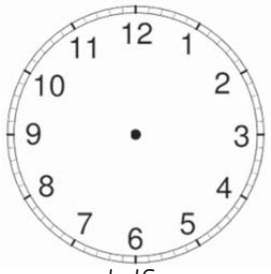


2. Now draw in the hand to show half an hour. How many minutes would there be in half an hour?

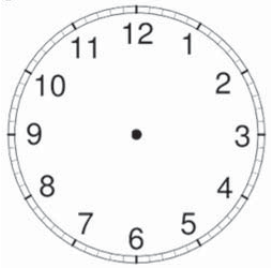
3. Now draw in the hand to show quarter of an hour. How many minutes would there be in quarter of an hour?

4. Now draw in the hand to show when there is a 'quarter to' the next hour. How many minutes would have passed altogether to get to that point?

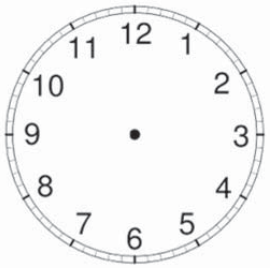
Draw in the following times on the following clocks:



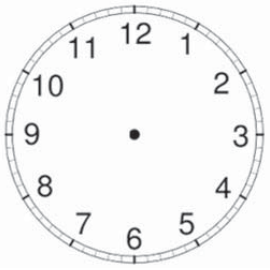
half past seven



quarter past nine



quarter to five



quarter to twelve

BACKWARDS QUESTION:

A father needed to get to school at 2:45 to pick up his children. He needed to allow half an hour for the traffic. What time did he need to leave home? Explain:

Interleaved practise

Year 3, week 5

Number:

1. Write the last 3 numbers for this pattern and describe the pattern.

   341, 348, 355, 362, _____, _____, _____

2. Is 27 odd or even? Show how you worked it out.

3. Write this number on the place value chart: **Fourteen thousand and fifty**

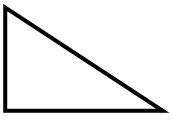
Ten-Thousands	Thousands	Hundreds	Tens	Ones

4. 3 x 7 = __ Show how you worked it out.

5. These rectangles represent whole cakes. Show 2 different ways that you could cut off one quarter. How much cake would you have left?

Measurement/Geometry:

6. Draw what this shape would look like if it was rotated a half turn clockwise.



7. Draw a shape that has 4 straight sides, 4 corners and 2 sides that are 2cm long.

8. Find a box at home that you no longer need. Open it up so that it lies flat (you will need to cut or detach some of the joins) and draw what the flattened box looks like on the back of this page. What shapes can you find?

Chance/Data:

9. Write two questions that you could ask your family to find out about the food they like.

F1. Read and record 12 hour time

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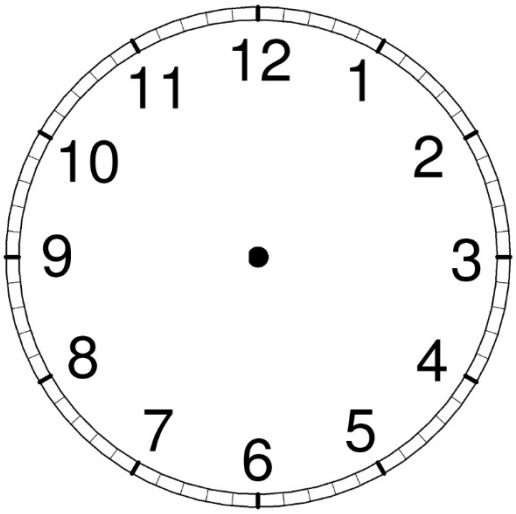


<u>The minute hand:</u> (long hand)
Record the position of the long hand on the clock face every 5 minutes for 10 minutes, then answer the questions below.

Look at the little marks around the outside of the clock:

1. How many marks does the minute hand move every 5 minutes?

2. How many minutes would it take for the minute hand to go around the clock?
   How come?

Where do you think the hour and minute hands would be at these times? Explain why.

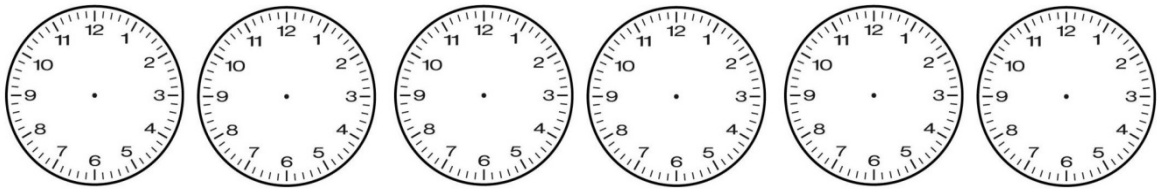
1. 9:10

2. 11:45

3. 1.25

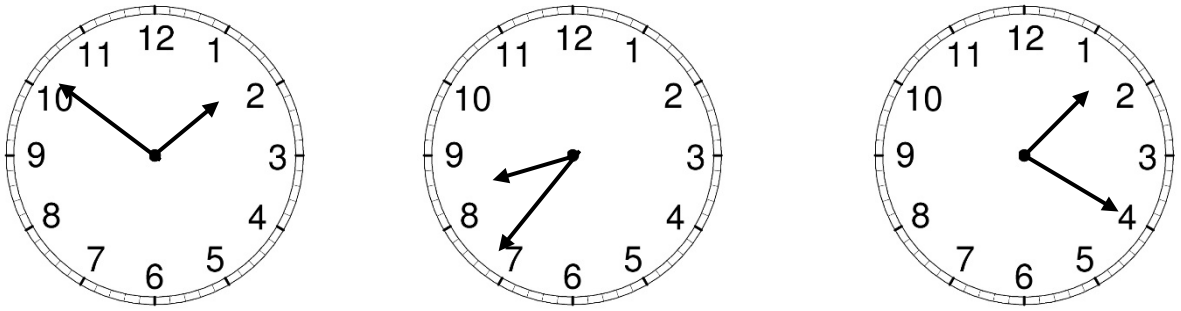
4. 3.13

For the following clocks, draw on the times using the hour hand and the minute hand.



12:30 **2:15** **3:45** **7:00** **9:10** **11:35**

For the clocks below: Circle the hour hand. Write the time below in digital format.

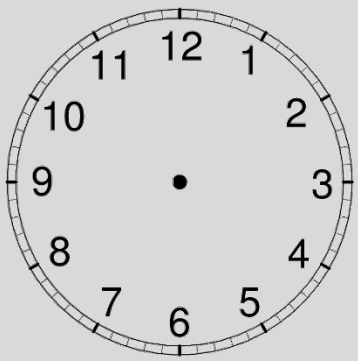


How do I read the time on an analogue clock?

Explain what I would do to work out what the time was.

Backwards Question:

If I needed to leave the house at 12:30, but wanted an alarm to go off 30 minutes before I left, what time would I set the alarm for? Draw it and explain what to do.



Problem 25: Elapsed time

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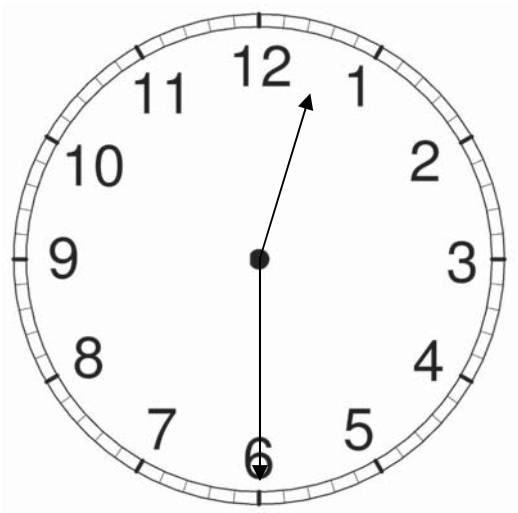
Paul's dad needs to leave home **45 minutes before** school ends so that he gets to school in time to pick Paul up. School ends at 3:00pm. Look at the time on the clock below.
How long does Paul's dad have before he has to leave?



1. What time is it now?

2. What time does Paul's dad have to leave?

Sharing time: Explain how you worked out what time Paul's dad had to leave.

3. So how long is there between now and when he has to leave?

Sharing time: Explain how you worked out how much time there is between now and when he has to leave.

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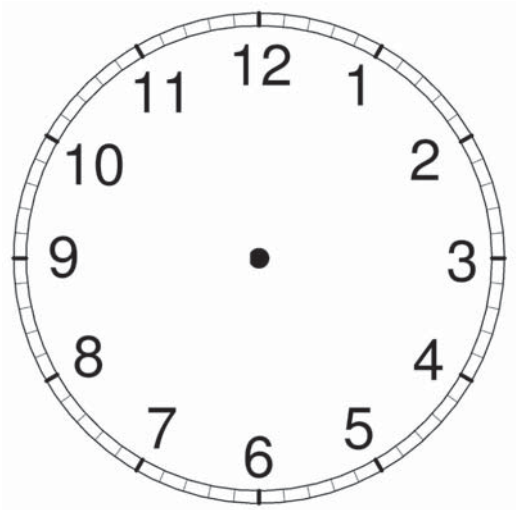
Manipulation problems:

Paul's dad needs to go to the shop on the way to school. It will take him **half an hour** to do the shopping. **What time should he leave home** so that he has time to do the shopping?

Draw the time on the clock.



Explain how you worked out what time Paul's dad had to leave:

How long does Paul's dad have before he has to leave home if he wants to do the shopping before picking Paul up? Explain how you got your answer:

Paul's dad accidentally fell asleep! The time when he woke up is shown below. Does he still have time to do the shopping if he leaves now?

1 :

Understanding: Prove that you are right. Show how you worked it out.

Teacher initials:

Date:

Problem solving / T&R:
- Problem solved with minimal or non-mathematical prompting
- Some leading questions were used to prompt thinking
- Solved after explanation
- Did not work out solution
- N/A- not a novel problem

Reasoning / Comm.: (verbal, written, working and equations, or visual representations)
- Clearly and logically reasoned
- Easily understood
- Understood with some interpretation needed
- Some gaps but on topic
- Minimal or off topic

Understanding / Reflect:
- Connected manipulation problems to previous questions and answered easily
- Connected manipulation problems to previous questions with some prompting, and answered correctly
- Answered once the similarities to previous questions had been pointed out
- Had some problems in answers but was on the right track
- Did not answer appropriately

- Student not observed