KS1 Therapy: Y2 Maths

Commissioned by The PiXL Club Ltd.

April 2018

M7a. Can describe position, direction and movement in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise)


= teacher notes

⭐ **Teacher information**

This resource should be used to support Key Marginal pupils for whom you have completed a PLC. It is designed to be delivered as a teaching activity to a small group or individual in order to fill a gap in their understanding. There is no expectation to use the PowerPoint in its entirety. Choose the methods and resources that suit your school's approach to place value, counting and calculation.

Use of this resource should form part of normal, day-to-day teaching, as you would do with a guided teaching group. This teaching resource is based on the National Curriculum expectations for Key Stage 1, with a focus on the laser-sharp statements from the PiXL PLC.

Before completing this therapy children should be able describe position, direction and movement, including whole, half, quarter and three-quarter turns in a clockwise direction. If not, complete therapy Y1 M7a first.

LORIC
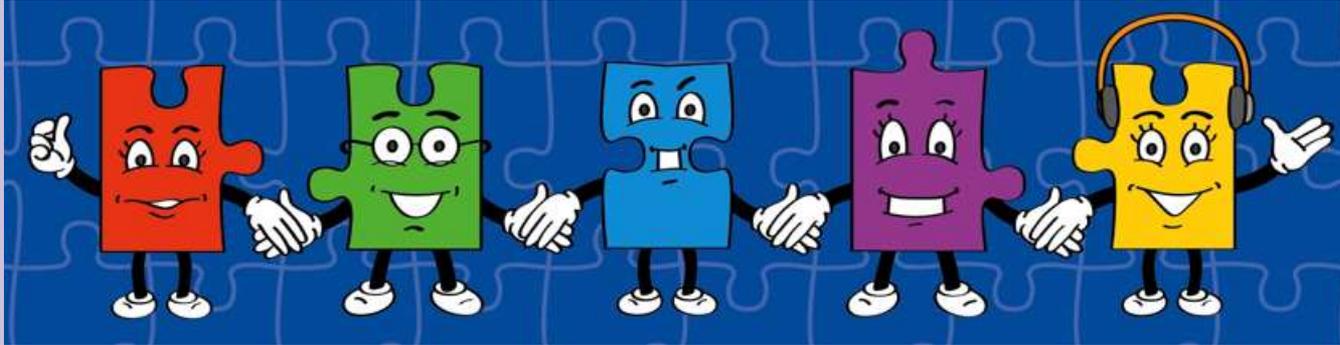
Our Primary Edge attributes help us to become better learners and today is no exception. Before you start this activity, here are some ideas for how you will need your Laura Leadership skills today:

- Show a good example to others
- Encourage others to do their best
- Work collaboratively and co-operate with others

Command Words:
Produce   Lead
Mentor/coach   Direct
Manage   Undertake
Take responsibility
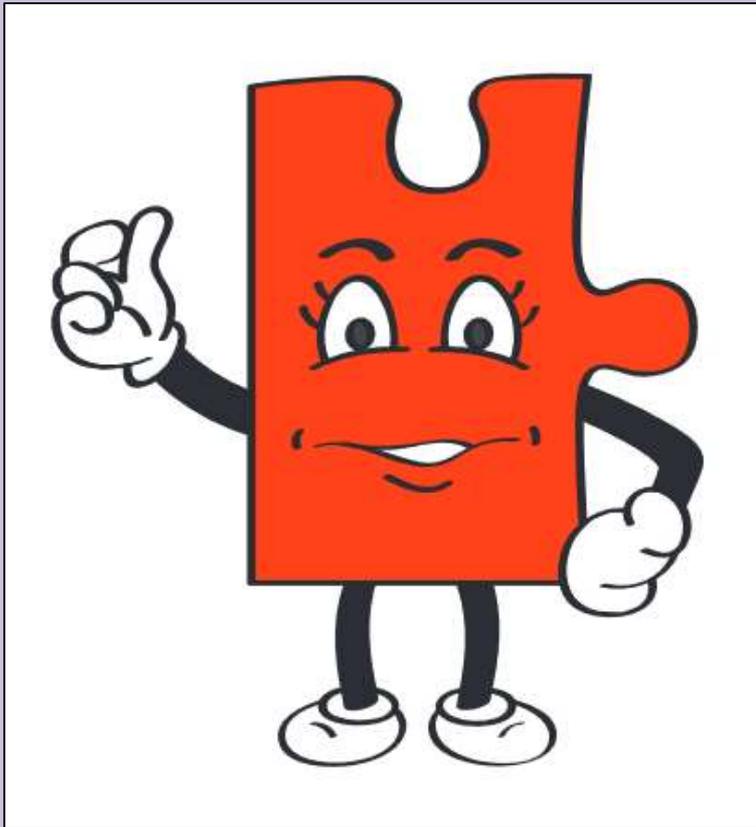
Developing Leadership Skills
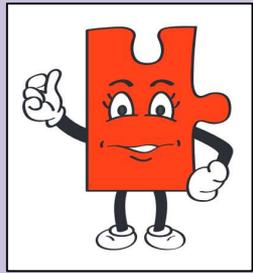
Use this activity to help children develop their leadership skills before you begin the therapy.

Take children to a large area and give each child, bar one, a blindfold. The one child who does not have a blindfold should lead their team across to a point you have given them. Make sure that each member in the group gets a chance to lead the team at regular intervals. Point out and exemplify good leadership as the game progresses. For example, co-operation by joining hands rather than working as individuals.

What difference did it make when you all worked together?

What I Will Be Looking For Today

You will have lots of chances to demonstrate your leadership skills today. Here's what I'll be looking for:

- Suggest improvements in a positive way.
- Use your own good examples to help others improve.
- Work as a group or pair to achieve the best outcome.

Clockwise

To help make our description of **turns** more exact we can explain which **direction** the ladybird is turning in. The ladybird is making a **half turn clockwise.** (This is the same direction that the hands on a clock move.)
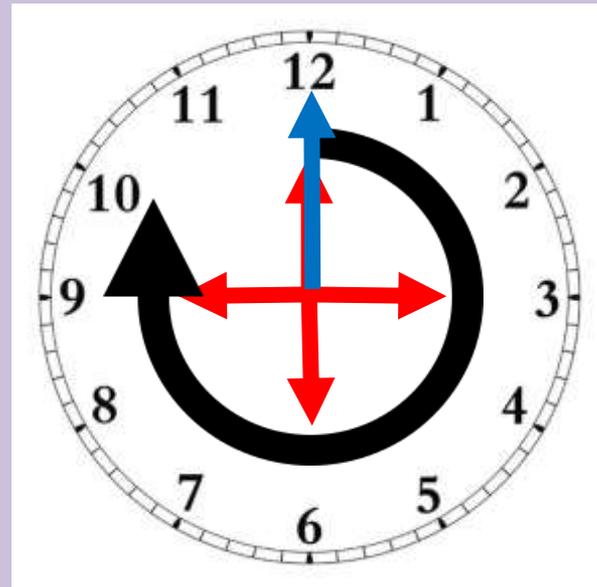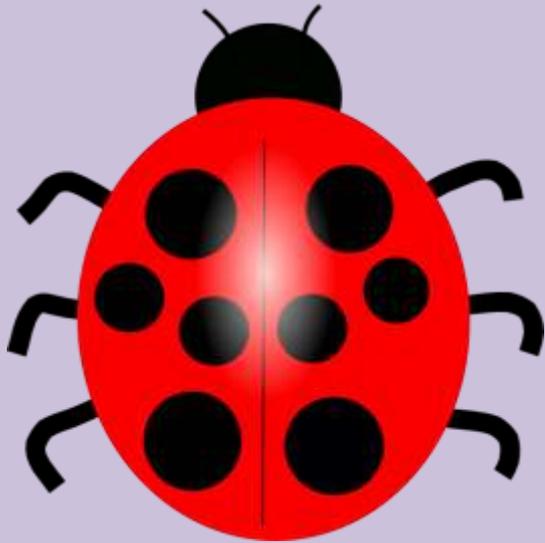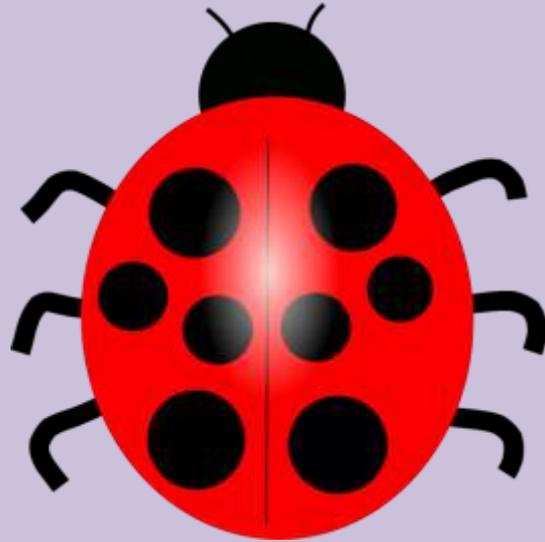

half a turn clockwise

Anti-clockwise

The ladybird is still making a **half turn** but now is turning in the **opposite direction**. This is called **anti-clockwise.** (This is the opposite direction that the hands move on a clock.)
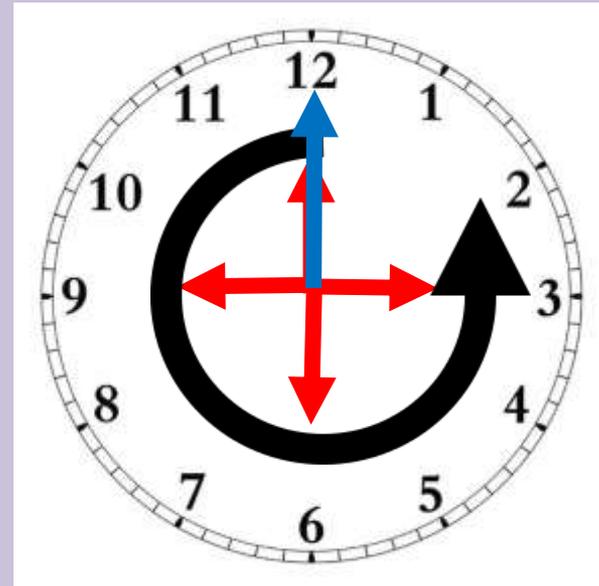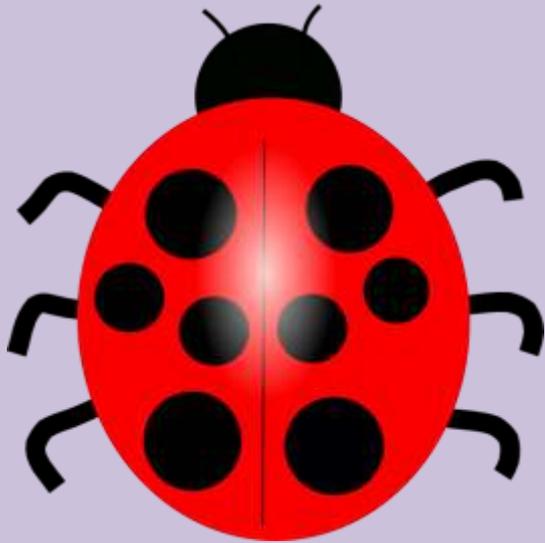
half a turn anti-clockwise

Practise

What turn has the ladybird made now?

a three-quarter turn anti-clockwise

Practise

Give children the opportunity to practise making half, quarter and three-quarter turns clockwise and anti-clockwise using themselves, objects and pictures.

Right angle turns

A **right angle** is the turn from the blue line to the red line. Imagine these are the hands on a clock. When the blue hand moves from the 12 to the 3, we can describe this as a **right angle turn clockwise**.
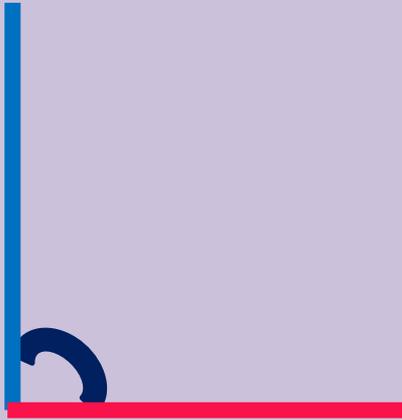
right angle
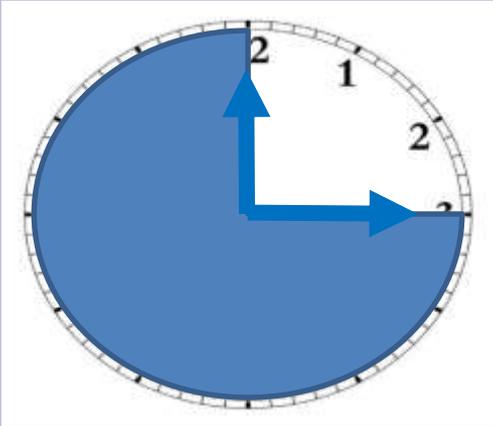
a right angle turn clockwise

Remember: Lines that change direction by making a **quarter turn** to the left or right are called **right angles**.

Right angle turns

Did you notice that a **right angle turn clockwise** is the same as a **quarter turn clockwise**?

Now look at a **right angle turn anti-clockwise**. Is it the same as a **quarter turn anti-clockwise**?
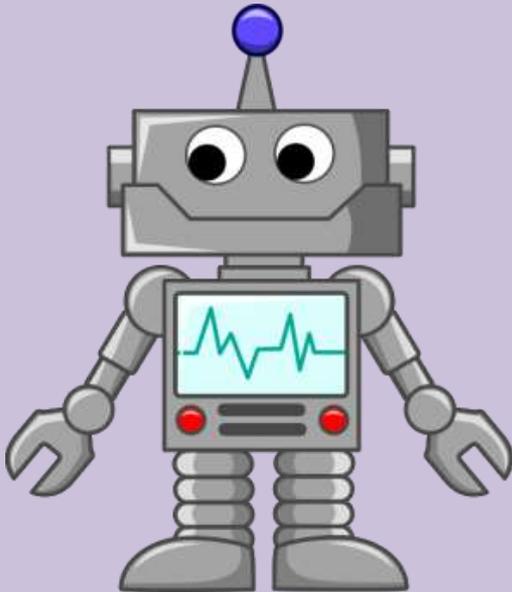
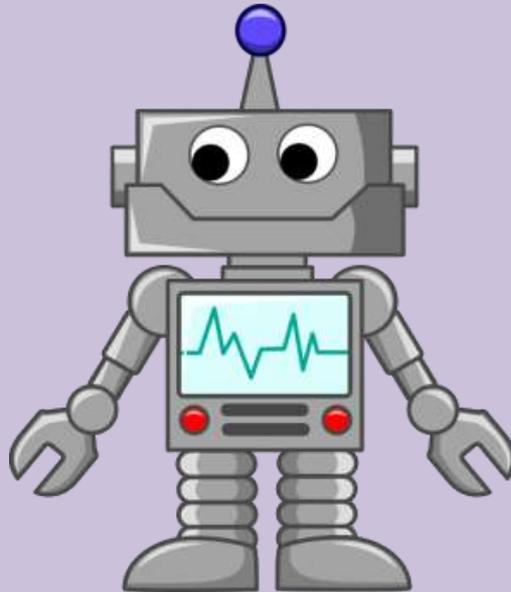right angle turn anti-clockwise

quarter turn anti-clockwise

Practise

Describe the direction of the **right angle turn** that the robot has made.
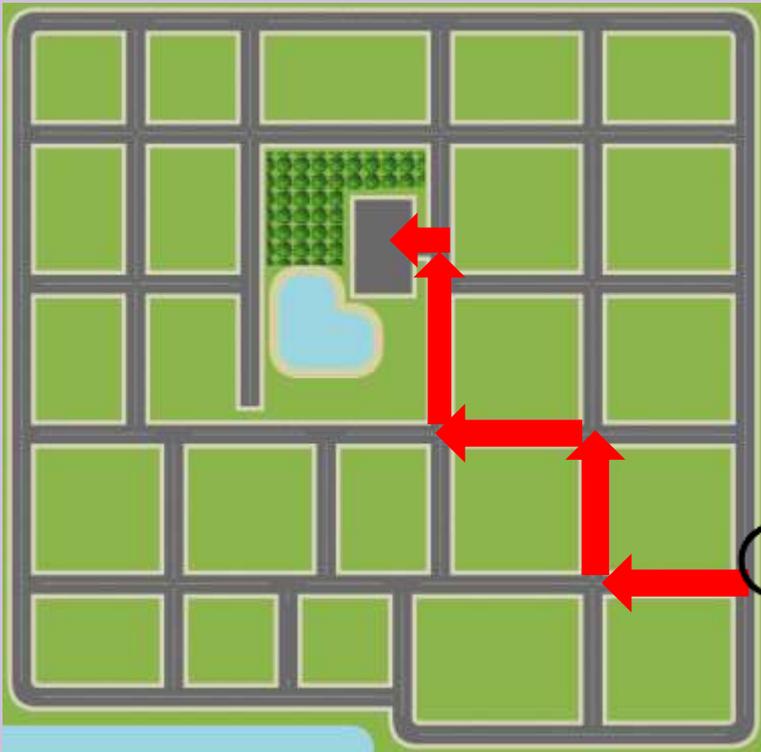

starting position

finishing position

Right angle turns

Hamid rode his bicycle to the park. He had to make lots of **right angle turns**. Let's count them.
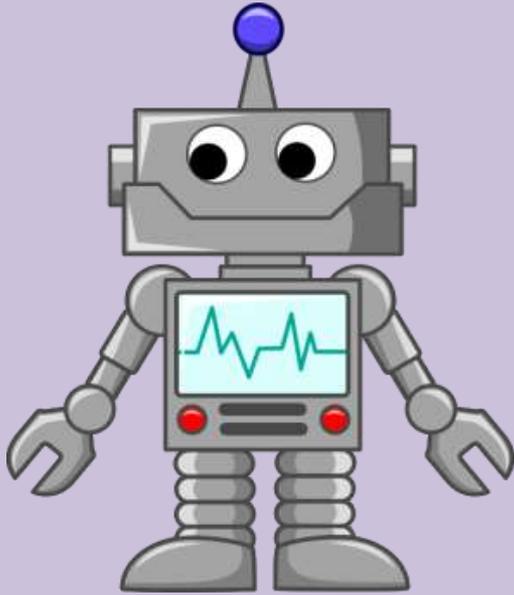
He made 4 right angle turns.

Were they all **clockwise** right angle turns?

No, he went clockwise, anti-clockwise, clockwise and anti-clockwise.

Right angle turns

Hamid took a different route the next day. How many **right angle turns** did he make this time?
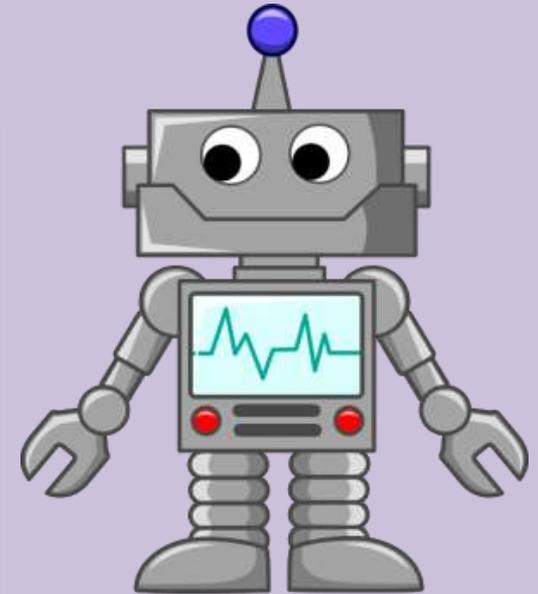
Right angle turns

This robot can only move in **right angle turns**. How many turns will he need to make to do a **half turn**? Let's count.
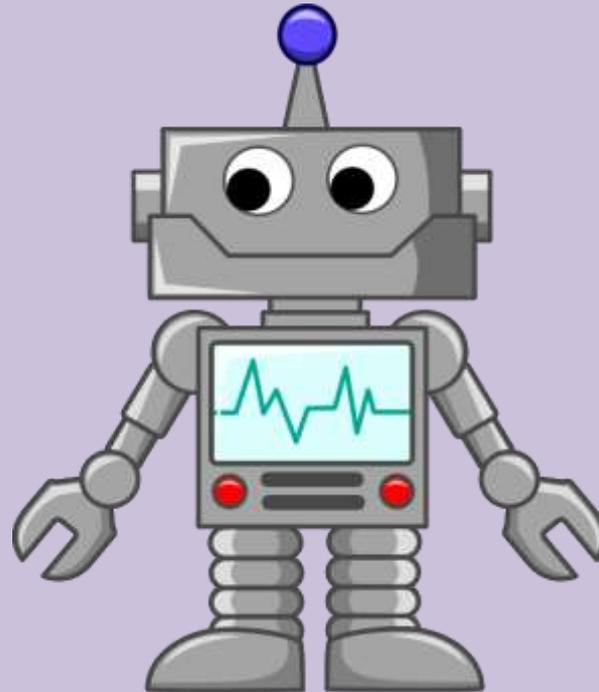
Did you notice that when completing a **half turn** you end in the same position moving in both a clockwise and anti-clockwise direction?
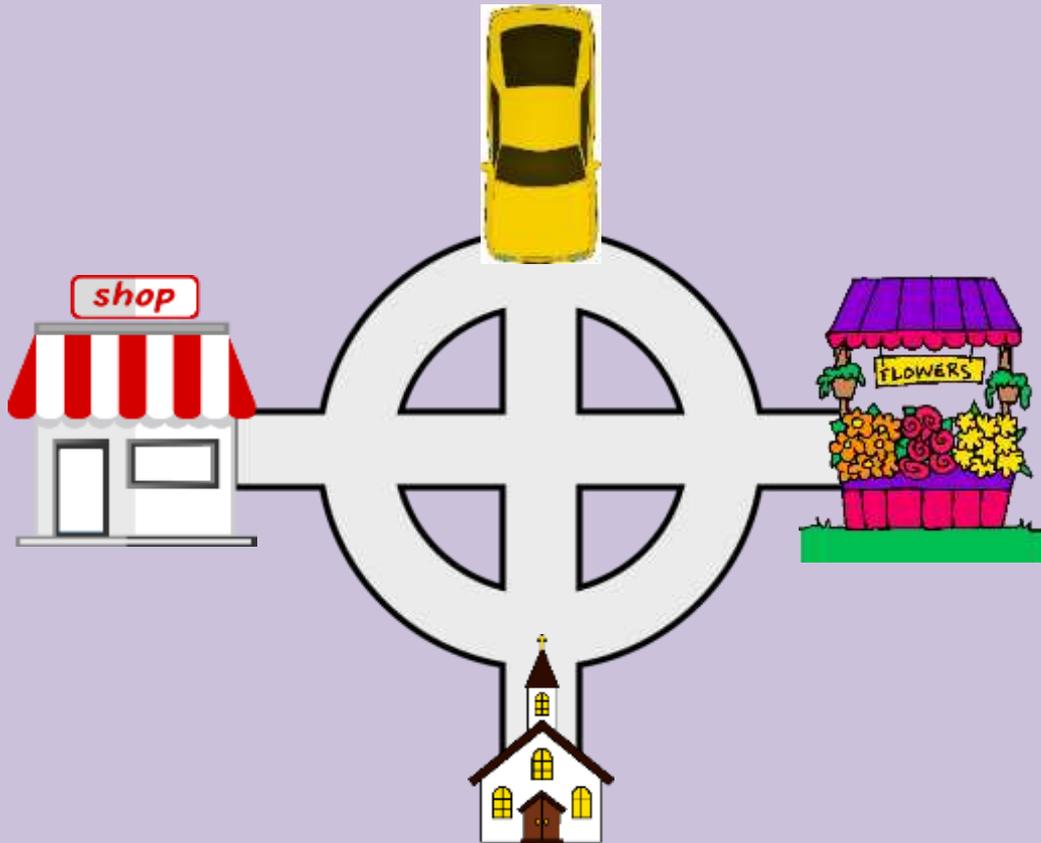
Practise

The robot can only make **right angle turns**. How many turns will he need to complete to do **one whole turn**?

Practise

This car can only make **right angle turns clockwise**. How many right angle turns will he need to make to get to the shops?

Show Me Tasks

Once the therapy has been delivered you can use Show Me Tasks to demonstrate that the skill is now secure. They are not intended to be completed all at once and ideally should be done in intervals of a few days after the therapy has been delivered. The challenge in the tasks is progressive.

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PiXL PRIMARY

Mathematics

Show Me Tasks
M7a. Can describe position, direction and movement in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise)
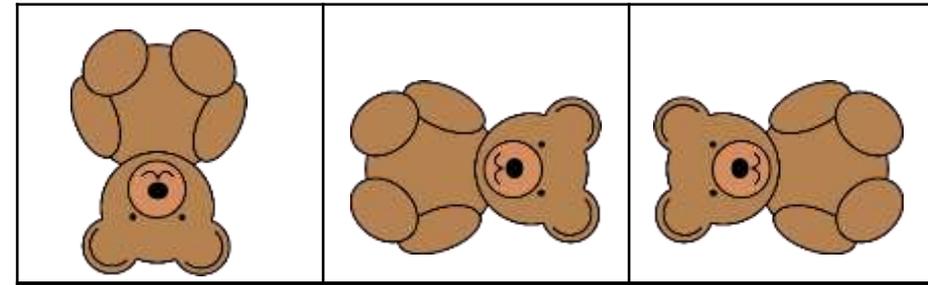
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The bear has made a quarter turn anti-clockwise. Tick the box that shows the position he ends up in.

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If the hand of this clock made three right angle turns clockwise, which number will it be pointing at?

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Write the instructions for a mouse to run around this capital letter.