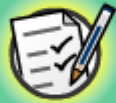


$$5 \times 7 = 35$$
$$20 + 2 = 22$$

# Angles



## Common core icons



This icon indicates a slide where the Standards for Mathematical Practice are being developed. Details of these are given in the Notes field.



Slides containing examples of mathematical modeling are marked with this stamp.



This icon indicates an opportunity for discussion or group work.

The **Standards for Mathematical Practice** outlined in the Common Core State Standards for Mathematics describe varieties of expertise that mathematics educators at all levels should seek to develop in their students.

These are:

- 1) **Make sense of problems and persevere in solving them.**
- 2) **Reason abstractly and quantitatively.**
- 3) **Construct viable arguments and critique the reasoning of others.**
- 4) **Model with mathematics.**
- 5) **Use appropriate tools strategically.**
- 6) **Attend to precision.**
- 7) **Look for and make use of structure.**
- 8) **Look for and express regularity in repeated reasoning.**



This icon indicates that the slide contains activities created in Flash. These activities are not editable.



This icon indicates teacher's notes in the Notes field.

# Find the angles

Whenever two lines meet, they form an **angle**. How many angles can you see in the classroom? Press on the angles to highlight them.

Press **start** to begin.

start



# Measuring angles



An angle is a measure of a **turn**.





Drag the blue circle to create an angle.  
Use the protractor tool to measure  
your angle, then press the blue box  
to check your answer.

Press **start** to begin.

start

36

12

8

4

0

angle:



# Matching angles



$\frac{5}{8}$  of a full  
turn

$225^\circ$



Connect the angle with the  
descriptions of its size.

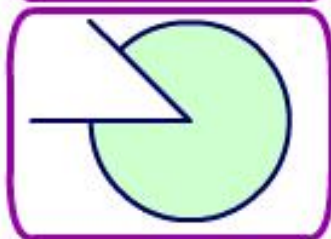
Press **start** to begin.

**start**



$\frac{2}{3}$  of a full  
turn

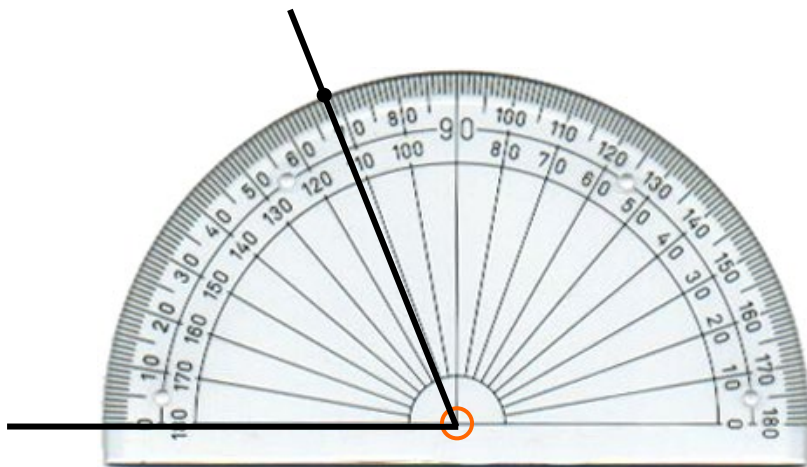
$315^\circ$



## How could you use a protractor to draw a $68^\circ$ angle?

Draw a horizontal line with a ruler.

Put the  $0^\circ$  line of the protractor along your line with the center of the protractor at one end.



Mark a point at  $68^\circ$  from the  $0^\circ$  line.

Use a ruler to draw a line through the point.



Use the border tools to practice drawing and measuring angles.

Set the pen tool to draw straight lines by pressing the curved line next to the pen icon. Press again to draw curved lines.

Press **start** to begin.

**start**







Angles on a  
straight line

Angles in  
a right angle

Angles around  
a point

**Adjacent angles**, or angles that are next to each other, can be added together and broken apart to calculate the size of unknown angles.

Press on each tab to see how to calculate angles on a straight line, in a right angle and around a point.



# Angles on a straight line



Use the protractor tool to practice measuring angles on a straight line. Press the colored boxes to reveal the size of each angle.

Press **start** to begin.

start

36

12

8

4

0



# Angles in a right angle



Use the protractor tool to practice measuring angles in a right angle. Press the colored boxes to reveal the size of each angle.

Press **start** to begin.

start

36

12

8

4

0



# Angles around a point



Use the protractor tool to practice measuring angles around a point. Press the colored boxes to reveal the size of each angle.

Press **start** to begin.

start

36

12

8

4

0





A sprinkler head turns  $115^\circ$  and pauses. It then turns another  $65^\circ$ .  
What is the total size of the sprinkler's turn?



Press the "=" button to show the work step by step.

$50^\circ$

$180^\circ$

$360^\circ$

