

Y3 Angles and Turns

KS2 Maths · Follows the national curriculum

Name _____ Class _____ Date _____

1. Worked example

How many right angles make a half turn?

Step 1 · One right angle is a quarter turn

1 quarter

Step 2 · A half turn is two quarters

2 right angles

Answer: 2 right angles make a half turn

Check: Face the front, turn 2 quarter turns: you now face the back ✓

2. Now try one with the steps

How many right angles does a rectangle have?

Step 1 · Look at each corner

Step 2 · All 4 corners fit exactly

Answer:

3. Practice

Have a go at each one. There is space underneath to work it out.

1. How many right angles make a quarter turn?

2. How many right angles make a whole turn?

3. How many right angles make a three-quarter turn?

4. How many right angles does a square have?

5. The hands of a clock show 3 o'clock. What kind of angle do they make?

6. Is the angle between the hands at 1 o'clock less than or greater than a right angle?

7. Which direction do clock hands turn: clockwise or anticlockwise?

8. Ruby faces north and makes a half turn. Does she now face north, east, south or west?

9. A right-angled triangle has how many right angles?

10. Is the angle between the hands at 5 o'clock less than or greater than a right angle?

11. The minute hand turns from 12 to 6. How many right angles has it turned through?

12. The minute hand turns from 3 to 12 clockwise. What fraction of a turn is that?

13. Zac turns 1 right angle clockwise, then 2 more right angles clockwise. How many right angles has he turned altogether?

14. Freya turns a quarter turn clockwise, then a quarter turn anticlockwise. How many right angles is she from where she started?

4. Before you hand it in

Thinking longer lines make a bigger angle.

An angle is the amount of TURN. Long or short arms, a right angle is still a right angle.

Thinking a right angle has to point a certain way (like the corner of an 'L').

Turn the paper. A right angle is still a right angle, whichever way it faces.

Mixing up clockwise and anticlockwise.

Clockwise is the way the hands go: from 12 towards 3. Anticlockwise is the other way.

Saying a three-quarter turn is 3 turns.

A quarter turn is 1 right angle. A three-quarter turn is 3 right angles, still less than one whole turn.