

Year 4: Turns and right angles: answers

Year 4 - Shapes, Angles and Symmetry - Lesson 9.1

Answers. Final answers to the worksheet questions. Full step-by-step solutions for every question are free at websink.site/ks2-sats/maths/year-4/ch09-shapes-angles-symmetry/turns-and-right-angles/

Exercise 9A Turns, right angles and perpendicular lines Non-calculator

1 How many right angles are there in each turn?

(a) a quarter turn

Answer: 1 right angle

(b) a half turn

Answer: 2 right angles

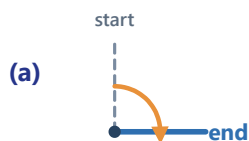
(c) a three-quarter turn

Answer: 3 right angles

(d) a whole turn

Answer: 4 right angles

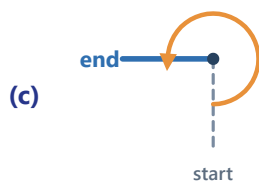
2 Name each turn. Write **quarter**, **half**, **three-quarter** or **whole** turn.



Answer: quarter turn



Answer: half turn

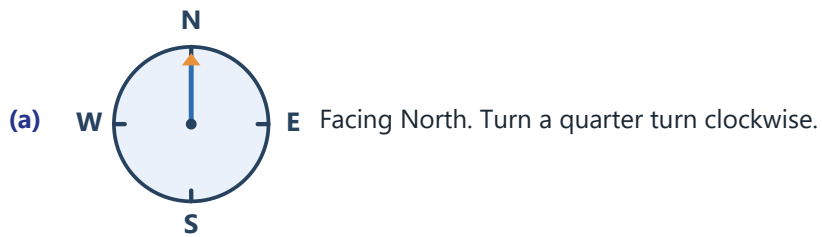


Answer: three-quarter turn

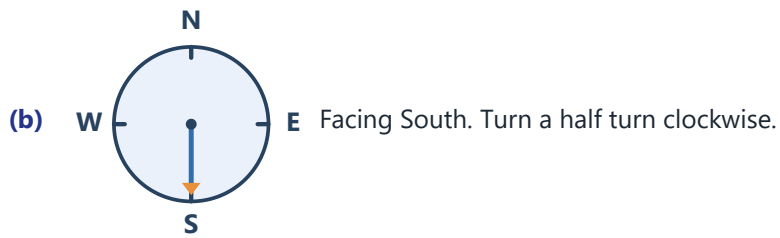


Answer: whole turn

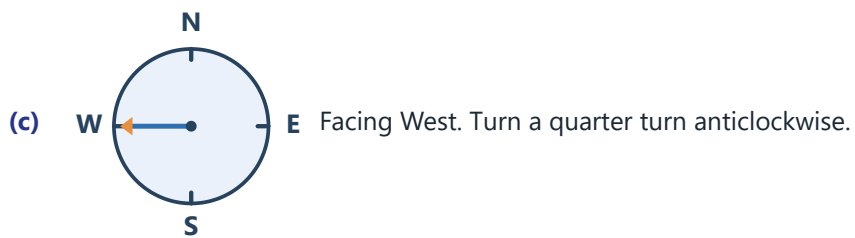
3 Each person turns. Which way are they facing at the end? Write North, East, South or West.



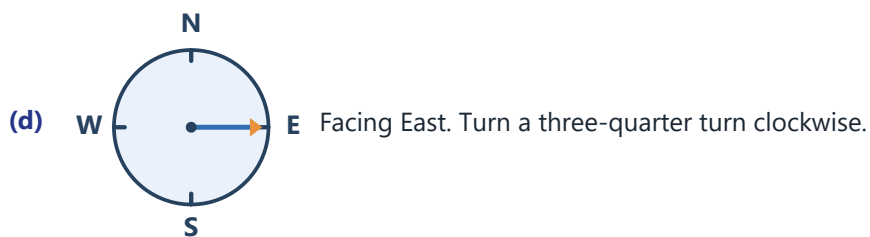
Answer: East



Answer: North



Answer: South



Answer: North

4 The minute hand of a clock moves clockwise. Name each turn.



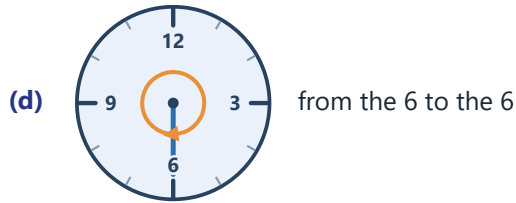
Answer: quarter turn



Answer: half turn



Answer: quarter turn

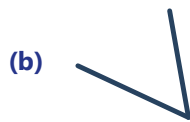


Answer: whole turn

5 Is each angle a right angle? Write **yes** or **no**. You can use the corner of a piece of paper.



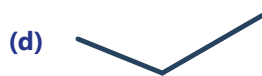
Answer: Yes



Answer: No

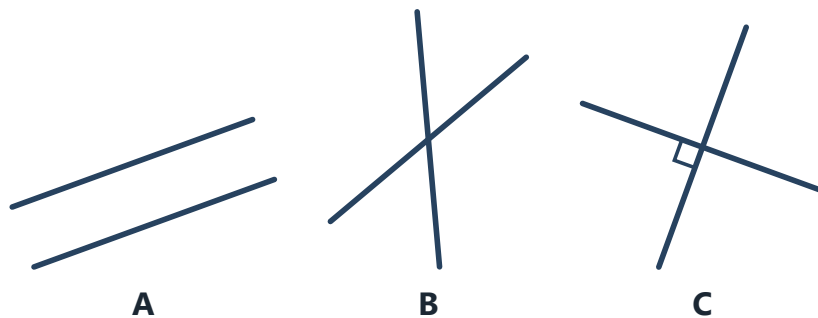


Answer: Yes



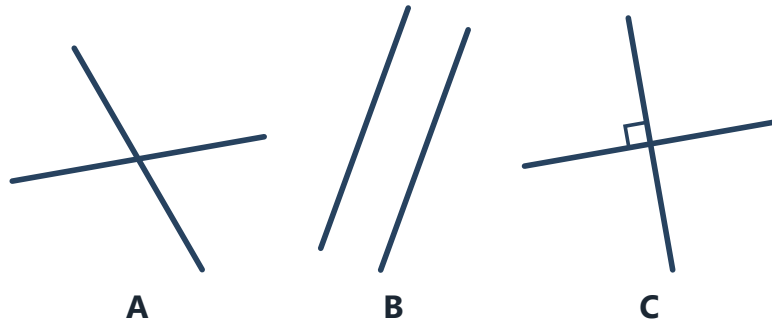
Answer: No

6 Which pair of lines is **perpendicular**? Write the letter.



Answer: C

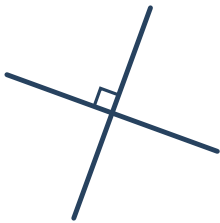
7 Which pair of lines is **parallel**? Write the letter.



Answer: B

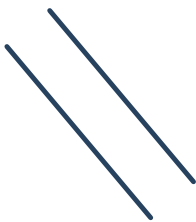
8 Write **parallel**, **perpendicular** or **neither** for each pair of lines.

(a)



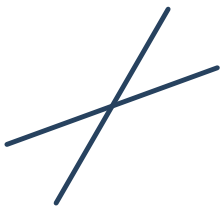
Answer: perpendicular

(b)



Answer: parallel

(c)



Answer: neither

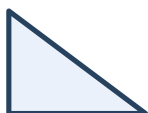
9 How many right angles does each shape have?

(a)



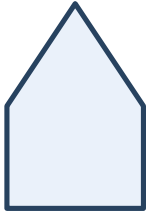
Answer: 4

(b)



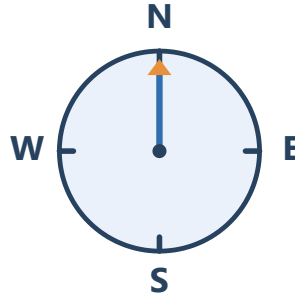
Answer: 1

(c)



Answer: 2

- 10 A robot is facing North. It makes a quarter turn clockwise, then a half turn, then a quarter turn anticlockwise. Which way is the robot facing now?



Answer: South

- 11 Aisha turns through 3 right angles. (a) How many more right angles does she need to make a whole turn? (b) What fraction of a whole turn has she made?

Answer: (a) 1 right angle (b) $\frac{3}{4}$

- 12 Tom says, "A half turn is 1 right angle." Is Tom correct? Explain how you know.

Answer: No. A half turn is 2 right angles

- 13 Write **always**, **sometimes** or **never** for each sentence.

- (a) Two right angles make a straight line.

Answer: Always

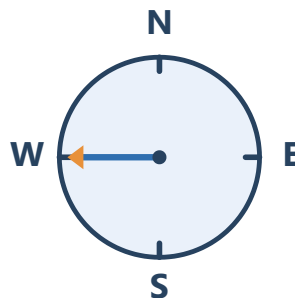
- (b) A turn clockwise ends facing the same way as a turn of the same size anticlockwise.

Answer: Sometimes

- (c) Perpendicular lines are parallel.

Answer: Never

- 14 Leo faces West. He makes a three-quarter turn clockwise, and then a quarter turn clockwise. (a) Which way does he face at the end? (b) What is the total turn he made?



Answer: (a) West (b) a whole turn (4 right angles)

