Homework/Extension
Step 2: Introduce Angles

National Curriculum Objectives:

Mathematics Year 6: (6G3a) Draw 2-D shapes using given dimensions and angles
Mathematics Year 6: (6G2a) Compare and classify geometric shapes based on their properties and sizes
Mathematics Year 6: (6G4a) Find unknown angles in any triangles, quadrilaterals and regular polygons
Mathematics Year 6: (6G4b) Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)
Developing Identify two angles that make a half turn. Introduces right angles and angles on a straight line by making links to quarter and half turns.
Expected Identify two angles that make a three quarter turn. Introduces right angles, angles on a straight line, and angles around a point by making links to quarter, half and three-quarter turns.
Greater Depth Identify three angles that make a three quarter turn. Introduces angles in shapes and comparing types of angles by making links to quarter, half and three-quarter turns.

Questions 2, 5 and 8 (Varied Fluency)
Developing Decide if a statement is correct. Introduces right angles and angles on a straight line by making links to quarter and half turns.
Expected Decide if a statement is correct. Introduces right angles, angles on a straight line, and angles around a point by making links to quarter, half and three quarter turns.
Greater Depth Decide if a statement is correct. Introduces angles in shapes and comparing types of angles by making links to quarter, half and three quarter turns.

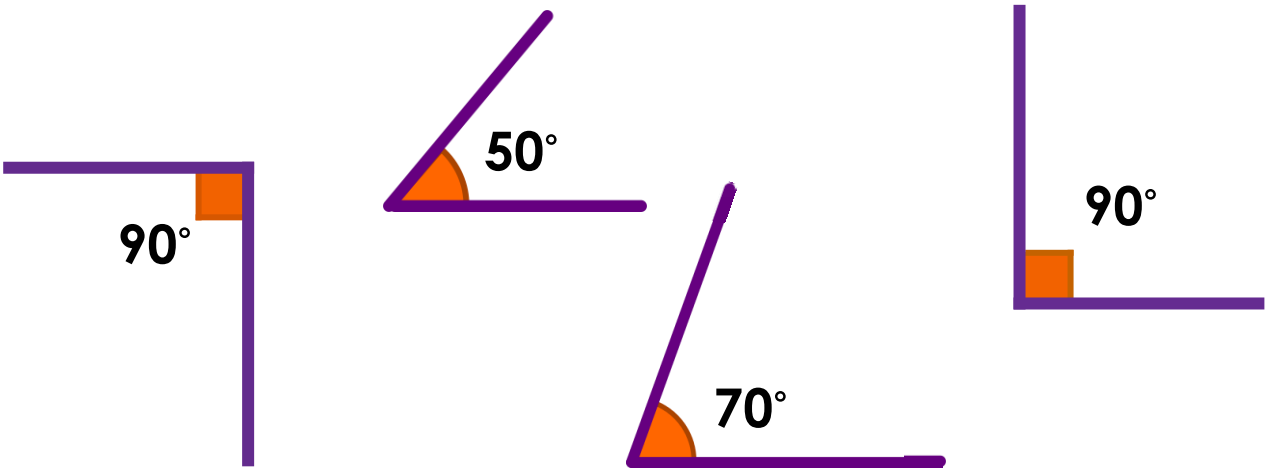
Questions 3, 6 and 9 (Reasoning and Problem Solving)
Developing Explain if a statement is correct. Introduces right angles and angles on a straight line by making links to quarter and half turns.
Expected Explain if a statement is correct. Introduces right angles, angles on a straight line, and angles around a point by making links to quarter, half and three quarter turns.
Greater Depth Explain if a statement is correct. Introduces angles in shapes and comparing types of angles by making links to quarter, half and three quarter turns.

More Year 6 Properties of Shapes resources.

Did you like this resource? Don't forget to review it on our website.

Introduce Angles

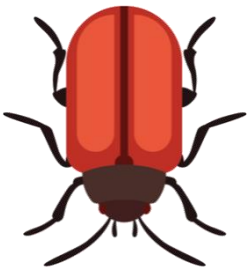
1. Circle two angles that add up make a half turn.



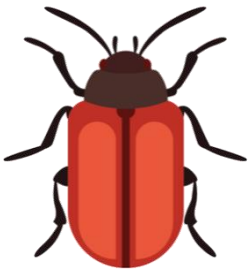
D

VF
HW/Ext

2. Rebecca is using a programmable toy. She says the toy has turned 90° clockwise.



Original position



New position

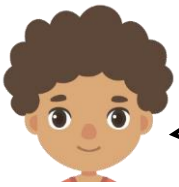
Is she correct?

D

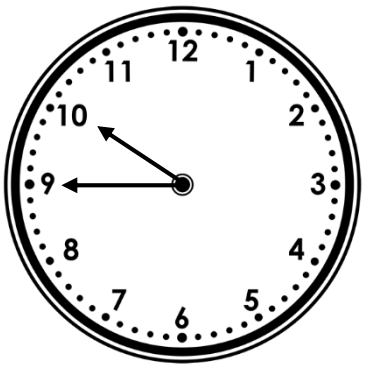
VF
HW/Ext

3. Aesir is planning a journey.

He says,



If I set off at 9:45 and my journey lasts for 15 minutes, the minute hand would have move 180°.



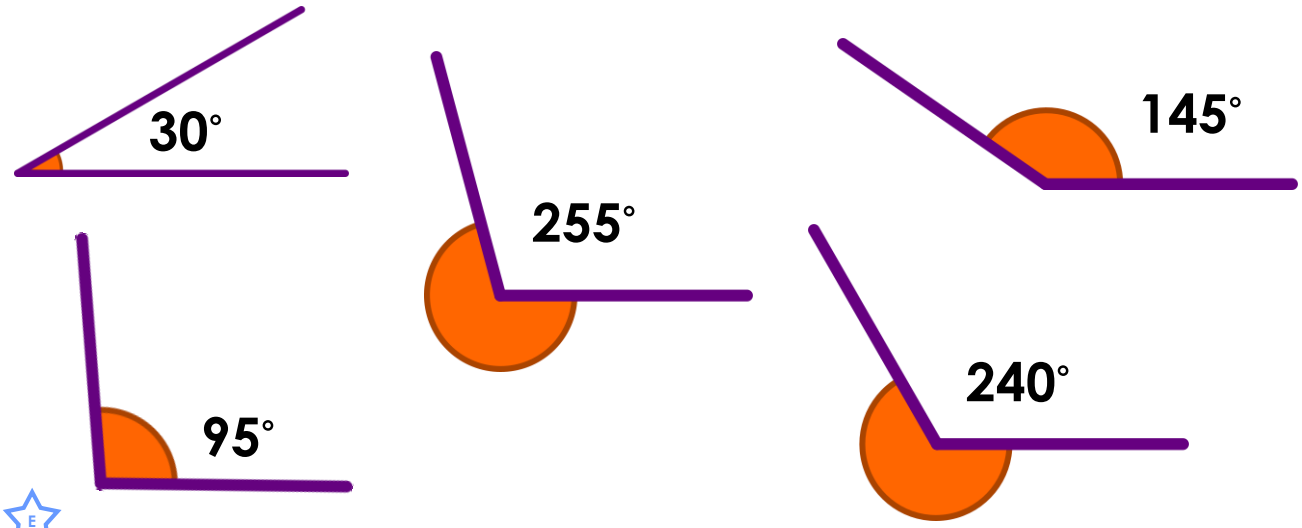
Is he correct? Explain your answer.

D

RPS
HW/Ext

Introduce Angles

4. Circle two angles that add up make a three quarter turn.

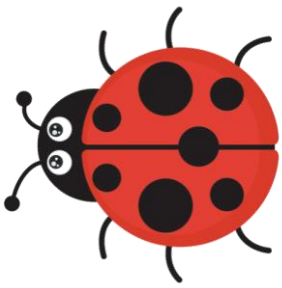


E

VF
HW/Ext

5. Leo is using a programmable toy. He says the toy has turned 270° clockwise.

Original position



New position

Is he correct?

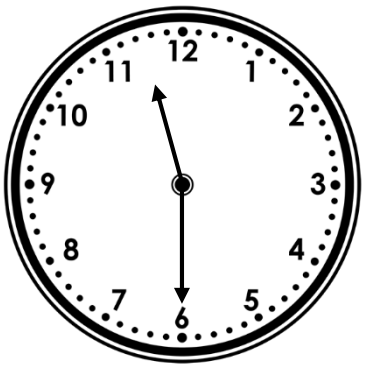
E

VF
HW/Ext

6. Sarah is planning a journey.

She says,

If I set off at 11:30 and my journey lasts for 30 minutes, the minute hand would have move 110°.



Is she correct? Explain your answer.

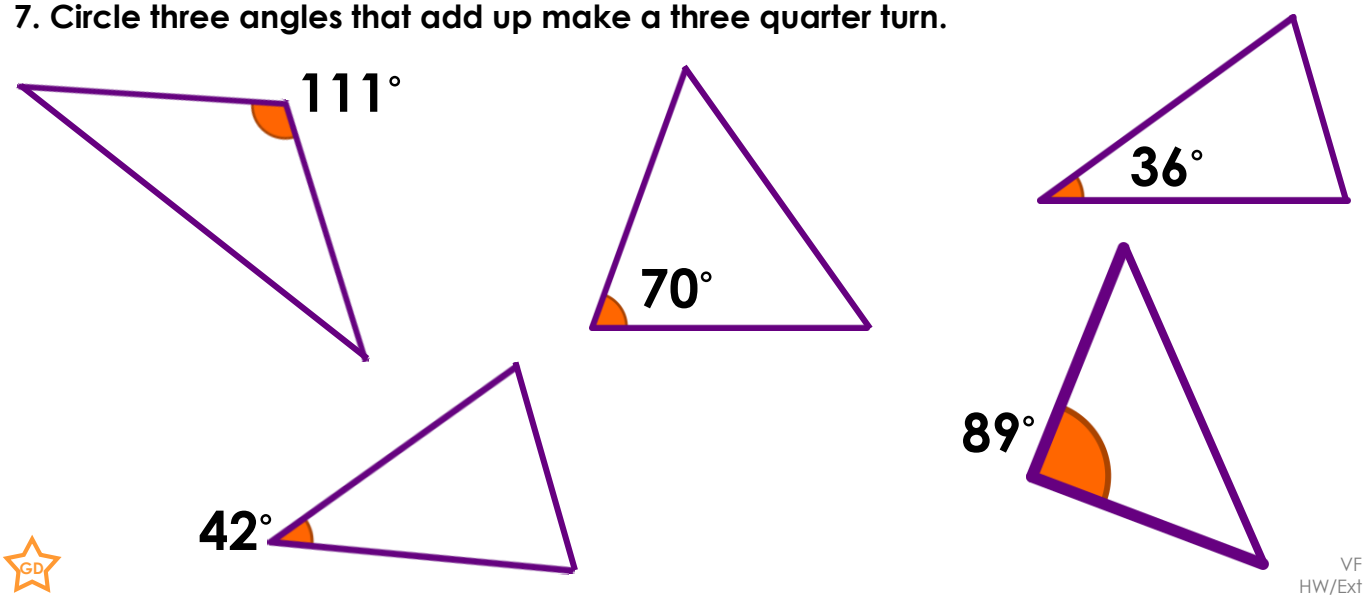
How many degrees would the minute hand move if the journey time was 45 minutes?

E

RPS
HW/Ext

Introduce Angles

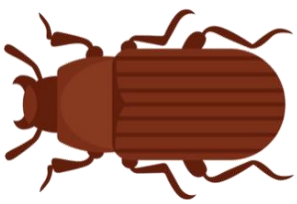
7. Circle three angles that add up make a three quarter turn.



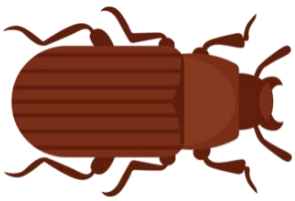
GD

VF
HW/Ext

8. James is using a programmable toy. He says the toy turned 180° clockwise then a three-quarter turn to the right.



Original position



New position

Is he correct?

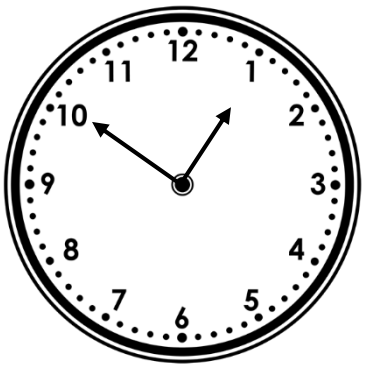
GD

VF
HW/Ext

9. Pippa is planning a journey.

She says,

If I set off at 12:50 and my journey lasts for 40 minutes, the minute hand would have move 360°.



Is she correct? Explain your answer.

How many degrees would the minute hand move if the journey time was 90 minutes?

GD

RPS
HW/Ext

Homework/Extension
Introduce Angles

Developing

1. 90° and 90°
2. No, the toy has turned 180° clockwise or 180° anti-clockwise.
3. No, the minute hand would have moved 90° as 15 minutes is a quarter of an hour.

Expected

4. 240° and 30°
5. Yes, the toy has moved 270° clockwise.
6. No, the minute hand would have moved 180° as it is an angle on a straight line. 270°.

Greater Depth

7. 111° + 89° + 70° = 270° (a three quarter turn)
8. No, the toy has only turned 180° clockwise.
9. No, the minute hand would have moved 240°. 360° is equal to 1 hour. 540°.