

Adjacent Angles on a Straight Line

Grade 5 • Use 180° to find the missing angle

Name: _____ Date: _____

Directions: The two angles sit on one straight line, so they add to 180° . Find the angle marked ?.

1.



one angle is 65°

Adjacent = _____ $^\circ$

2.



one angle is 42°

Adjacent = _____ $^\circ$

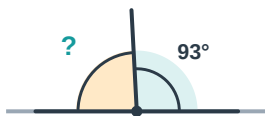
3.



one angle is 118°

Adjacent = _____ $^\circ$

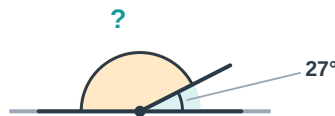
4.



one angle is 93°

Adjacent = _____ $^\circ$

5.



one angle is 27°

Adjacent = _____ $^\circ$

6.



one angle is 154°

Adjacent = _____ $^\circ$

7.



one angle is 76°

Adjacent = _____ $^\circ$

8.



one angle is 109°

Adjacent = _____ $^\circ$

9.



one angle is 35°

Adjacent = _____ $^\circ$

10.



one angle is 84°

Adjacent = _____ $^\circ$

11.



one angle is 126°

Adjacent = _____ $^\circ$

12.



one angle is 58°

Adjacent = _____ $^\circ$



Remember

a straight line is a half turn, so the two angles add to 180° .

Subtract the given angle from 180° . If the given angle is acute, the answer must be obtuse.

Answer Key

Adjacent Angles on a Straight Line

Answers

1. $180^\circ - 65^\circ = 115^\circ$
check: $65^\circ + 115^\circ = 180^\circ$

2. $180^\circ - 42^\circ = 138^\circ$
check: $42^\circ + 138^\circ = 180^\circ$

3. $180^\circ - 118^\circ = 62^\circ$
check: $118^\circ + 62^\circ = 180^\circ$

4. $180^\circ - 93^\circ = 87^\circ$
check: $93^\circ + 87^\circ = 180^\circ$

5. $180^\circ - 27^\circ = 153^\circ$
check: $27^\circ + 153^\circ = 180^\circ$

6. $180^\circ - 154^\circ = 26^\circ$
check: $154^\circ + 26^\circ = 180^\circ$

7. $180^\circ - 76^\circ = 104^\circ$
check: $76^\circ + 104^\circ = 180^\circ$

8. $180^\circ - 109^\circ = 71^\circ$
check: $109^\circ + 71^\circ = 180^\circ$

9. $180^\circ - 35^\circ = 145^\circ$
check: $35^\circ + 145^\circ = 180^\circ$

10. $180^\circ - 84^\circ = 96^\circ$
check: $84^\circ + 96^\circ = 180^\circ$

11. $180^\circ - 126^\circ = 54^\circ$
check: $126^\circ + 54^\circ = 180^\circ$

12. $180^\circ - 58^\circ = 122^\circ$
check: $58^\circ + 122^\circ = 180^\circ$

Marking note

Adding the two angles back together must give 180° . That check is written under each answer above, and it catches a subtraction slip without needing the key.

Items 1, 2, 5, 7, 9, 10 and 12 give an acute angle, so those answers must be obtuse — and the other way round. A student whose answer sits on the same side of 90° as the angle they were given has made an error they can see in the picture.