

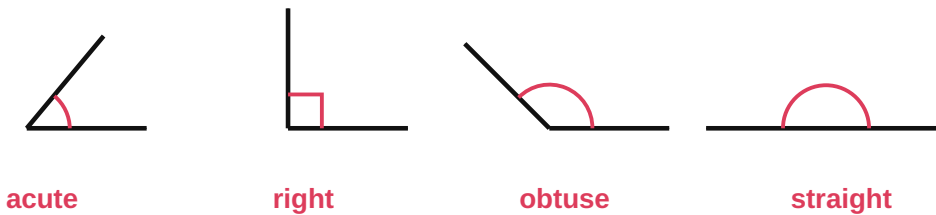
# Boost Free Lessons - Year 5 Maths

## Lesson 18: Classifying Angles

Name: \_\_\_\_\_ Grade: \_\_\_\_\_ Date: \_\_\_\_\_

### Worked Example 1

Name each type of angle shown below.



1. An **acute** angle is smaller than a right angle, so less than  $90^\circ$ .
2. A **right** angle is exactly  $90^\circ$  and is marked with a small square.
3. An **obtuse** angle is between  $90^\circ$  and  $180^\circ$ .
4. A **straight** angle is exactly  $180^\circ$ . Anything larger, up to  $360^\circ$ , is **reflex**.

### Acute, right, obtuse and straight

### Worked Example 2

Two angles sit on a straight line. One is  $115^\circ$ . Find the other.

1. Angles on a straight line always add to  $180^\circ$ .
2. One angle is  $115^\circ$ , so the other must make up the difference.
3.  $180 - 115 = 65$ .
4. Check:  $115 + 65 = 180$ .

### The other angle is $65^\circ$

**Remember:** **Acute** is under  $90^\circ$ , **right** is exactly  $90^\circ$ , **obtuse** is between  $90^\circ$  and  $180^\circ$ , **straight** is  $180^\circ$ , and **reflex** is over  $180^\circ$ .



**Question 1:** Name the type of each angle.

1.  $45^\circ$

2.  $90^\circ$

3.  $130^\circ$

4.  $180^\circ$

5.  $270^\circ$

6.  $89^\circ$

7.  $91^\circ$

8.  $5^\circ$



**Question 2:** Answer the following.

1. Two angles on a straight line: one is  $40^\circ$ . Find the other.
2. Two angles on a straight line: one is  $155^\circ$ . Find the other.
3. Angles at a point add to  $360^\circ$ . Two are  $90^\circ$  and  $130^\circ$ . Find the third.
4. Two angles at a point are  $200^\circ$  and  $85^\circ$ . Find the third.
5. Vertically opposite angles are equal. One is  $72^\circ$ . What is the other?
6. Can two obtuse angles sit together on a straight line? Explain.



**Question 3:** Answer the following questions.

1. A clock's hands at 3 o'clock. What type of angle do they make?
  
  
  
  
  
  
  
  
  
  
2. A clock's hands at 6 o'clock. What type of angle do they make?
  
  
  
  
  
  
  
  
  
  
3. A ramp meets the ground at  $25^\circ$ . What type of angle is this?
  
  
  
  
  
  
  
  
  
  
4. A door is opened until it makes a  $120^\circ$  angle with the wall. What type of angle is this?
  
  
  
  
  
  
  
  
  
  
5. Two angles on a straight line are equal. What size is each?





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**Answers:** Classifying Angles**Question 1**

1. Acute
2. Right
3. Obtuse
4. Straight
5. Reflex
6. Acute
7. Obtuse
8. Acute

**Question 2**

1.  $140^\circ$
2.  $25^\circ$
3.  $140^\circ$
4.  $75^\circ$
5.  $72^\circ$
6. No. Each would be more than  $90^\circ$ , so together they would total more than  $180^\circ$ .

**Question 3**

1. A right angle
2. A straight angle
3. Acute
4. Obtuse
5.  $90^\circ$  each

