

# Angle Basics

Geometry · Grade 4

Score: \_\_\_\_\_ / 10

◆ Medium · 10 Questions

Solve each problem. Show your work in the space provided. Write your answer on the line.

1. In a right triangle, one acute angle is  $38^\circ$ .  
Find the other acute angle.

Answer: \_\_\_\_\_

2. Find the missing angle in this triangle:  $90^\circ$ ,  $45^\circ$ ,  $\_\_\_\circ$

Answer: \_\_\_\_\_

3. Classify the angle:  $135^\circ$ . Is it acute, right, obtuse, or straight?

|  |
|--|
|  |
|  |
|  |
|  |

Answer: \_\_\_\_\_

4. A right angle is split by a ray into two parts. One part is  $35^\circ$ . Find the other part.

|  |
|--|
|  |
|  |
|  |
|  |

Answer: \_\_\_\_\_

5. Two angles are vertically opposite.  
One measures  $74^\circ$ . What is the other?

|  |
|--|
|  |
|  |
|  |
|  |

Answer: \_\_\_\_\_

6. An isosceles triangle has a base angle of  $52^\circ$ .  
Find the apex angle.

|  |
|--|
|  |
|  |
|  |
|  |

Answer: \_\_\_\_\_

7. An equilateral triangle has all equal angles.  
What is each angle?

|  |
|--|
|  |
|  |
|  |
|  |

Answer: \_\_\_\_\_

8. In a triangle, two angles measure  $60^\circ$  and  $80^\circ$ . What is the third?

|  |
|--|
|  |
|  |
|  |
|  |

Answer: \_\_\_\_\_

9. Two angles are supplementary. One is  $110^\circ$ . Find the other.

|  |
|--|
|  |
|  |
|  |
|  |

Answer: \_\_\_\_\_

---

10. Two angles are complementary. One is  $28^\circ$ . Find the other.

|  |
|--|
|  |
|  |
|  |
|  |

Answer: \_\_\_\_\_

---

---

## Answer Key

### Angle Basics — Medium

1. **52°**

Right triangle: one angle =  $90^\circ$ . Other two add to  $90^\circ$ .  $90^\circ - 38^\circ = 52^\circ$ .

2. **45°**

$90^\circ + 45^\circ + ? = 180^\circ$ .  $? = 180^\circ - 135^\circ = 45^\circ$ .

3. **Obtuse**

Acute  $< 90^\circ$ . Right =  $90^\circ$ . Obtuse:  $90^\circ < \text{angle} < 180^\circ$ . Straight =  $180^\circ$ .  $135^\circ$  is between  $90^\circ$  and  $180^\circ$ .

4. **55°**

Right angle =  $90^\circ$ .  $90^\circ - 35^\circ = 55^\circ$ .

5. **74°**

Vertically opposite angles are always equal.

6. **76°**

Isosceles: two base angles are equal =  $52^\circ$  each. Apex =  $180^\circ - 52^\circ - 52^\circ = 76^\circ$ .

7. **60°**

Sum =  $180^\circ$ . Three equal angles:  $180^\circ \div 3 = 60^\circ$ .

8. **40°**

$180^\circ - 60^\circ - 80^\circ = 40^\circ$ .

9. **70°**

$180^\circ - 110^\circ = 70^\circ$ .

10. **62°**

$90^\circ - 28^\circ = 62^\circ$ .