Aksum Math

Name: _____

Angle Basics

Date: _____

Geometry · Grade 4

Score: _____ / 10

★ Hard · 10 Questions

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

1. In triangle ABC, angle A = 3x, angle B = 2x, angle C = x.
Find the value of x and each angle.

Answer: _____

2. An angle of 130° is split into two parts. One part is 45°. Find the other.

Answer: _____

3. Three angles meet at a point on a straight line. They measure 30°, 75°, and ___°.

Answer: _____

4. Two angles share a common ray. Together they form a right angle. One is 38°. Find the other.

Answer: _____

5. Four angles around a point: 90°, 100°, 70°, and ___°.

Answer: _____

6. A right angle is split into three equal parts. What is each part?

Answer: _____

7. Vertically opposite angles. One is 4x and the other is 80°. Find x.

Answer: _____

8. In an isosceles right triangle, what are the two non-right angles?

Answer: _____

9. An angle is twice its complement. Find the angle.

Answer: _____

10. Two angles on a line: one is three times the other. Find both.

Answer: _____

Answer Key

Angle Basics — Hard

1. **x=30°. A=90°, B=60°, C=30°.**

3x+2x+x=6x=180°. x=30°.

2. **85°**

Whole angle = sum of parts. 130° – 45° = 85°.

3. **75°**

Angles on a line sum to 180°. 180° – 30° – 75° = 75°.

4. **52°**

Right angle = 90°. 90° – 38° = 52°.

5. **100°**

Angles around a point sum to 360°. 360° – 90° – 100° – 70° = 100°.

6. **30°**

90° ÷ 3 = 30°.

7. **x = 20°**

Vertically opposite angles are equal. 4x = 80°, so x = 20°.

8. **45° each**

Sum of acute angles = 90°. Equal: 90°/2 = 45°.

9. **60°**

Let angle = 2x and complement = x. 2x + x = 90°. x = 30°. Angle = 60°.

10. **45° and 135°**

x + 3x = 180°. 4x = 180°. x = 45°. Other = 135°.