

Unit 7: Angles and Angle Measurement

ADVANCED · SET 2

Name: _____ Date: _____

Solve each problem and write your answer as a single number in degrees unless the problem says otherwise. Show your work.

1. A spinner turns through exactly $\frac{7}{12}$ of a full circle. Through how many degrees does it turn?

Answer: _____

3. Three angles sit side by side along a straight line, so together they form a straight angle. Two of them measure 47° and 88° . What is the measure of the third angle?

Answer: _____

5. A ray starts pointing at the 35° mark and rotates counterclockwise until it points at the 208° mark. Through how many degrees did it rotate?

Answer: _____

7. A ray splits a straight angle into two angles, and one angle is exactly twice the size of the other. What is the measure of the larger angle?

Answer: _____

9. Angle PQR measures 156° . A ray extends QR to form a straight line through Q. What is the measure of the angle that, added to angle PQR, completes the straight angle?

Answer: _____

2. Ray BC lies inside angle ABD, splitting it into two smaller angles. If angle ABD = 137° and angle ABC = 68° , what is the measure of angle CBD?

Answer: _____

4. Four angles meet at a single point and completely surround it. Three of them measure 90° , 115° , and 62° . What is the measure of the fourth angle?

Answer: _____

6. Two adjacent angles together form a right angle. One angle is 14° larger than the other. What is the measure of the smaller angle?

Answer: _____

8. On a clock, each hour mark is 30° apart. What is the measure of the smaller angle between the hour hand and the minute hand at exactly 4:00?

Answer: _____

10. A full turn of 360° is divided into 8 equal angles that meet at one point. What is the measure of each angle?

Answer: _____

11. Two adjacent angles form a straight angle. Their measures can be written as $3x$ and $2x$. What is the measure of the larger angle (the one equal to $3x$)?

Answer: _____

12. A figure skater spins through 3 complete turns and then one additional quarter turn. Through how many total degrees does the skater spin?

Answer: _____