

Unit 7: Angles and Angle Measurement

ADVANCED

Name: _____ Date: _____

Solve each problem and write your answer on the line. Show your work on scratch paper; give exact answers in degrees ($^{\circ}$) unless the problem asks yes/no.

1. The supplement of an angle is 68° larger than the angle itself. What is the measure of the angle?

Answer: _____

3. Ray OB lies inside angle AOC. If angle AOB = 84° and angle AOC = 137° , what is the measure of angle BOC?

Answer: _____

5. On a clock at exactly 5:00, each hour mark equals 30° . What is the measure of the smaller angle between the hour hand and the minute hand?

Answer: _____

7. A straight angle (180°) is split by two rays into three angles measuring 48° , x , and 72° . What is x ?

Answer: _____

9. A ray bisects (cuts exactly in half) an angle that measures 138° . What is the measure of each half?

Answer: _____

11. Angle PQS measures 156° . Ray QR splits it so that angle PQR = 79° . What is the measure of angle RQS?

Answer: _____

2. Two angles are complementary. One angle is 4 times the other. What is the measure of the LARGER angle?

Answer: _____

4. An angle turns through $\frac{5}{12}$ of a full circle. How many degrees is the angle?

Answer: _____

6. An angle measures 143° . What is the measure of its reflex angle (the rest of the full turn)?

Answer: _____

8. Four angles meet at a single point and together make a full turn. Three of them measure 116° , 94° , and 88° . What is the measure of the fourth angle?

Answer: _____

10. Two angles are supplementary. The larger angle is 26° greater than the smaller. What is the measure of the LARGER angle?

Answer: _____

12. An angle measures 234° . Is this angle a reflex angle (greater than 180°)? Answer yes or no.

Answer: _____