

8-6: Solve Problems Involving Area of a Circle

1. Sample answer: When you know the radius of a circle, you can substitute it for r into the area formula, or if give the area, you can substitute it for A to find the radius or diameter. 17. a. 87.4
b. C
2. No; 3.14 and $\frac{22}{7}$ are approximations of the value of π , not the exact value of π . Since π is a nonterminating, nonrepeating number, you can't write it exactly as a fraction or a repeating decimal. 18. 530
3. Sample answers: First, divide the diameter by 2 to find the radius, square this answer, and then multiply by π .
4. About 200.96 square inches
5. About 3 feet
6. About 50.24 square meters
7. About 113.04 square inches
8. 254.34 square feet
9. 8,820.26 square yards
10. 305.12 square inches
11. About 200.96 square meters
12. 217 square meters
13. 21 square inches
14. 11 feet
15. 49.6 square meters
16. About 4,112 m²