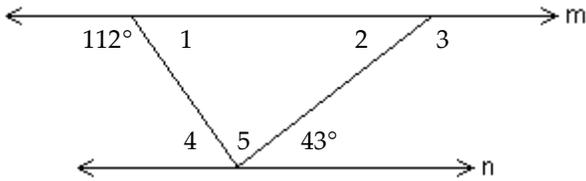


Algebra I: Predicting Patterns and Examining Experiments

Unit 6 : Chapter Review

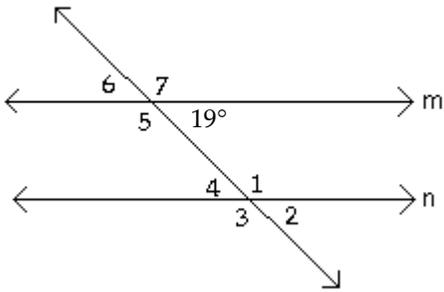
If lines m and n are parallel, find the measures of angles 1 through 5.

1.



If lines m and n are parallel, find the measure of the indicated angle.

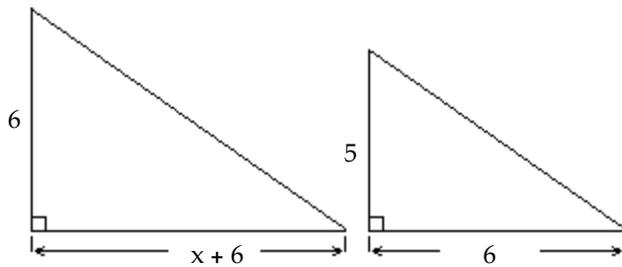
2.



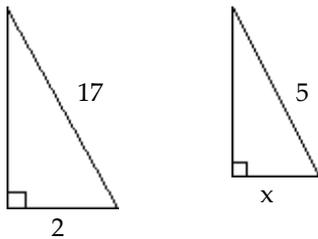
Find the measure of $\angle 3$.

Given that the pair of triangles is similar, find x .

3.



4.



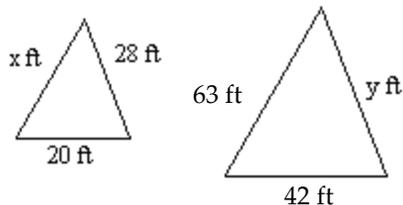
Round to the nearest tenth, if necessary.

Solve using the five-step problem-solving process.

5. The second angle of a triangle is 3 times as large as the first. The third angle is 55° more than the first. Find the measure of the smallest angle.
6. The complement of an angle measures 54° less than the angle. Find the measure of the angle.

Find the perimeter of the specified triangle. Assume the triangles are similar.

7. Find the perimeter of the triangle on the left.



Solve using the five-step problem-solving process.

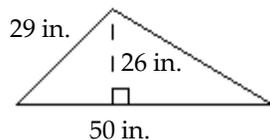
8. A rectangular Persian carpet has a perimeter of 240 inches. The length of the carpet is 30 inches more than the width. What are the dimensions of the carpet?

Find the circumference and area of the circle. Approximate each value to the nearest tenth when appropriate.

9. radius = 2.45 yd

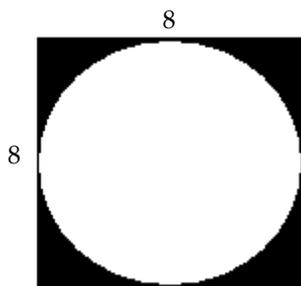
Find the area of the triangle. Approximate values to the nearest tenth when appropriate.

- 10.

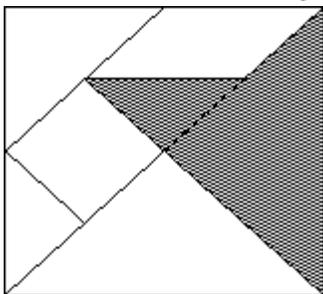


Solve the problem.

11. Find the area of the shaded region.



12. Find the area of the shaded region in the figure. Round results to the nearest unit



The hypotenuse of the smaller triangular portion of the shaded region has length 13 ft. The sides of the outer square have length 26 ft.

13. A rectangular patio has dimensions 10 feet by 15 feet. The patio is surrounded by a border with a uniform width of 3 feet. Find the area of the border.

Solve using the five-step problem-solving process.

14. A square plywood platform has a perimeter which is 9 times the length of a side, decreased by 15. Find the length of a side.

Answer Key

Testname: 6-4PRACTICE

1. $m\angle 1 = 68^\circ$, $m\angle 2 = 43^\circ$, $m\angle 3 = 137^\circ$, $m\angle 4 = 68^\circ$, $m\angle 5 = 69^\circ$
2. 161°
3. 1.2
4. 0.6
5. 25°
6. 72°
7. 78 ft
8. 45 in., 75 in.
9. $C = 15.4$ yd, $A = 18.8$ yd²
10. 650 in.²
11. $64 - 16\pi$ square units
12. 211 ft²
13. 186 sq ft
14. 3