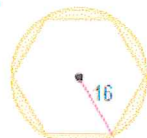Find the area of each polygon. Round to the nearest tenth. (Lesson 11-3)

12. regular hexagon with apothem length of 14 millimeters 679.0 mm²

13. regular octagon with a perimeter of 72 inches 391.1 in²

Find the area of each shaded region. Assume that all polygons are regular. Round to the nearest tenth. (Lesson 11-3)

14. 1208.1 units²

94

15. 216.6 units²

21

37.

16

139.1 units²

For Questions 2 and 3, refer to the figure.

2. Find the probability that a point chosen at random lies in the shaded sector of the circle.

3. Find the probability that a point chosen at random lies in the shaded segment of the circle.

80° 40° 140° 8 in.
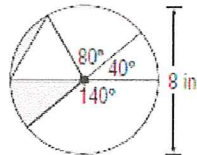
2. ___5.6 in²___

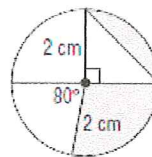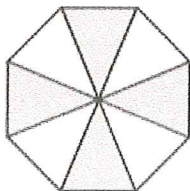3. ___1.4 in²___

For Questions 4 and 5, refer to the figure.

4. Find the probability that a point chosen at random lies in the shaded sector of the circle.

5. Find the probability that a point chosen at random lies in the shaded segment of the circle.

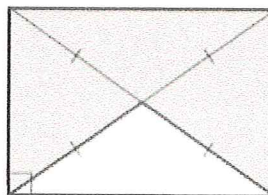2 cm 80° 2 cm

4. ___3.5 cm²___

5. ___1.1 cm²___

Find the probability that a randomly chosen point lies in the shaded region. Express each probability as a decimal to the nearest hundredth.
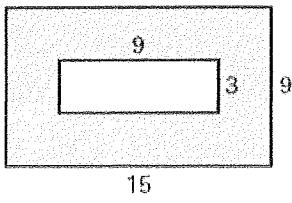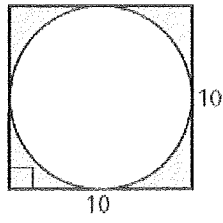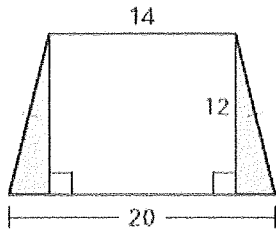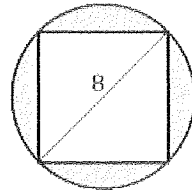
1.

0.5

2.

0.75

3.

9

9   3   9

15

0.8

4.

10

10

0.21

5.

14

12

20

0.18

6.

8

0.36

7.

3

4

0.48

8.

4

0.25

9.

1

2   2
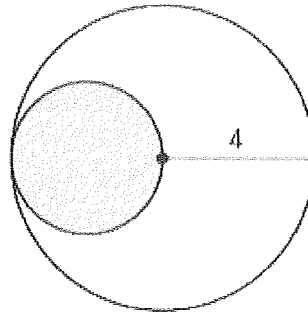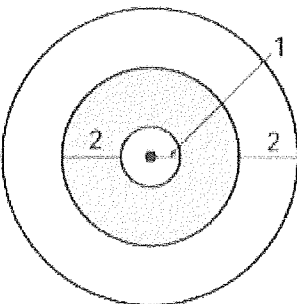
0.32

10.

2 in.

4 in.
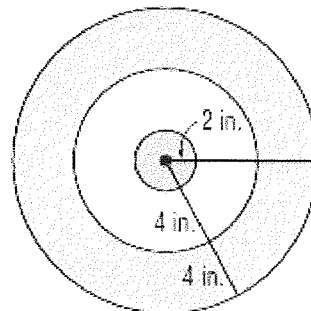
4 in.
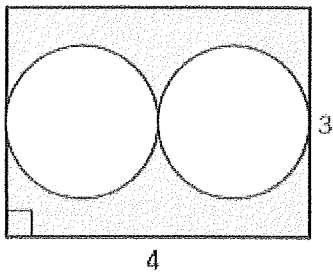
0.68

11. Find the probability for each outcome on the game spinner shown at the right.

a) Receive a free spin
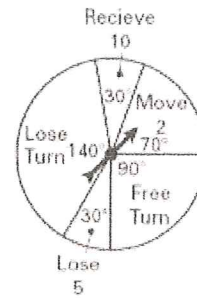
0.25

b) Lose a turn

0.39

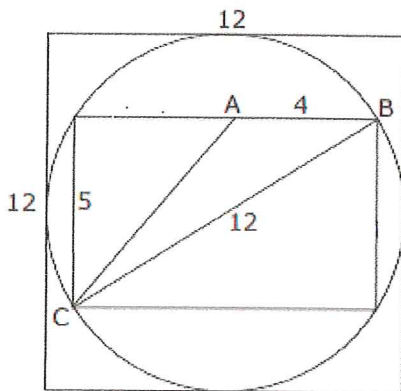c) Receive 10 bonus points

0.08

d) Move forward 2 spaces

0.19

e) Lose 5 points

0.08

Recieve
10

30 / Move
2
70°

Lose
Turn 140
90°

Free
Turn

30°

Lose
5

Triangle ABC is inscribed in a rectangle, which is inscribed in a circle, which is inscribed in a square. Express each probability as a percent to the nearest tenth.

12

A   4   B

12   5

12

C

21. What is the probability that a pebble dropped on the figure will land *only* in the triangle ABC?

6.9% $\dfrac{10}{144}$

22. What is the probability that the pebble will land in the rectangle but *not* in the triangle *ABC*?

30.9% $\dfrac{(5\sqrt{119})-10}{144}$

23. What is the probability that the pebble will land in the circle, but *not* in the rectangle or triangle *ABC*?

40.7% $\dfrac{36\pi-(5\sqrt{119})}{144}$

24. What is the probability that the pebble will land in the square, but not the circle, rectangle or triangle *ABC*?

21.5% $\dfrac{144-36\pi}{144}$