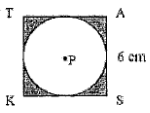
Name Key Date _____ Hour _____

Geometric Probability Quiz Review

Round to the nearest hundredth and use 3.14 for Pi.

1. a. Find the area of the circle. $3.14(3)^2 = 28.26 cm^2$



b. Find the area of the square. $36 cm^2$

c. Find the probability that a dart thrown randomly will hit the circle.

$28.26/36 = 78.5\%$

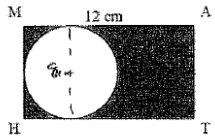
2. In the following diagram MATH is a rectangle with an inscribed circle. The circle has a diameter of 8 centimeters and the rectangle has a height of 12 centimeters (as shown).

Find the probability that a dart thrown randomly will hit the circle.

$3.14(4)^2 = 16(3.14) = 50.24$

$8(12) = 96$

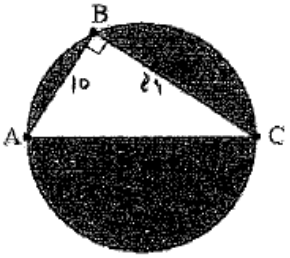
$50.24/96$ 52%



3. In the following diagram, right triangle ABC is inscribed in a circle. It is given that $AC = 26$, $BC = 24$, $AB = 10$ and AC is the diameter of the circle.

Find the probability that a dart thrown randomly will hit the triangle.
Give your answer as a fraction, decimal and percent.

$\frac{10(24)}{2} = 120$



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$3.14(13)^2 = 530.66$

$\frac{120}{530.66} = 23\%$

Use the picture at the right for Questions 4 – 7.

4. A rectangular field measures 27 feet by 15 feet. Find the area of the field. $A=27(15) = 405ft^2$

5. A small shed is on the field. Its dimensions are 8 feet by 10 feet. What is its area?
$A = 8(10) = 80ft^2$

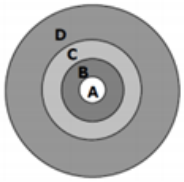
6. What is the probability that a single drop of rain that lands in the field would hit the shed? Give your answer as a fraction, decimal and percent.
$80/405 = 20\%$

7. What is the probability that a single drop of rain that lands in the field would *not* hit the shed? Give your answer as a fraction, decimal and percent.
$100\%-20\%=80\%$

Use the dartboard at the right for Questions 8 – 11.

A dartboard is made up of concentric circles with the following radii:

Circle A: r = 2 inches
Circle B: r = 4 inches
Circle C: r = 6 inches
Circle D: r = 10 inches



8. Find the area of circle *A*. $A=12.56in^2$

9. Find the area of circle *B* that is *not* covered by circle *A* $A=37.68in^2$

10. Find the area circle *C* that is *not* covered by circle *A* or *B*. $A=62.8in^2$

11. Find the area of the dartboard that is *not* covered by circles *A*, *B*, or *C*.
$A=200.96in^2$