

Test #4 – Measurement, Geometry, Circle Properties

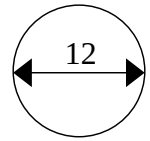
[40 marks]

Part A: Multiple Choice [K/U, 10 marks]

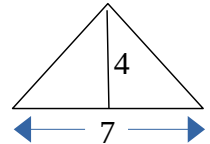
1. In 1991, Quarterback Doug Flutie threw a total of 6,619 yards. How many miles is this?
a. 1.25 b. 3.76 c. 6.02 d. 2206.33

2. There are 3 feet in 1 yard. How many cubic feet are there in 1 cubic yard?
a. 3 b. 9 c. 27 d. 81

3. What is the perimeter of the circle shown?
a. 18.85 b. 36.70 c. 113.10 d. 240



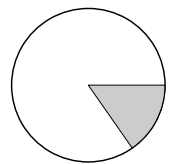
4. What is the area of the triangle shown?
a. 7 b. 14 c. 28 d. 56



5. A rectangular deck has a length of 24ft and an area of 252ft². What is the width of this deck?
a. 2¼ ft. b. 10½ ft. c. 21ft d. 102Ft

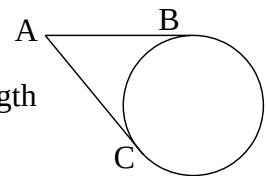
6. For a rectangular prism (box), you get the most volume with the least surface area if...
a. Length is longest b. Width is longest
c. Height is longest d. All dimensions are the same.

7. What is the name of the shaded part of the circle, shown right?
a. Segment b. Sector c. Chord d. Tangent

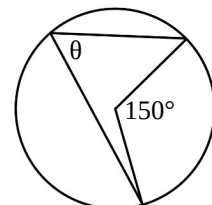


8. What is the name of a line (or line segment) that just touches the edge of a circle?
a. Arc b. Chord c. Secant d. Tangent

9. In the diagram, AB and AC are tangent to the circle. What can be said about the lengths of AB and AC?
a. AB is longer than AC b. AB and AC are the same length
c. AB is shorter than AC d. More information is needed



10. What is the measure of θ in the diagram shown?
a. 75° b. 150°
c. 50° d. Unknown

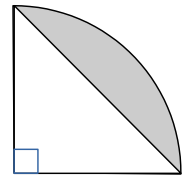


Part B: Problem Solving [C, 10 marks]

1. Describe how you would calculate the volume of concrete in the brick shown. [3 marks]



2. Describe how you would calculate the area of the segment shown. [3 marks]



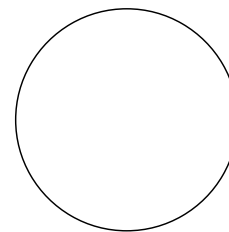
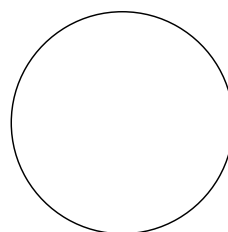
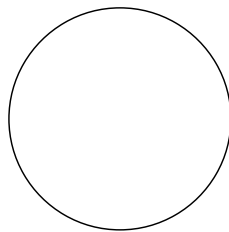
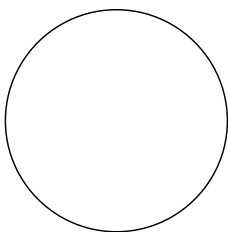
3. Draw (or highlight) the following objects on each circle:

a. Arc

b. Chord

c. Central Angle

d. Inscribed Angle



MCT 4C
Mr. Kempe

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Date: _____

Part C: Problem Solving [ATIPS, 20 marks]

Complete any 5 of the following 6 problems. Each problem is worth 4 marks. If you complete all six, you will be given marks for the “best 5”.

1. A small sandbox measures 48in. \times 48in. \times 12in. If sand costs \$24 per cubic yard, how much will it cost to fill the sandbox?



2. A Lindor Chocolate has a diameter of about 1 inch. Each chocolate is individually wrapped.

How much wrapping is needed for a package of 20 Lindor Chocolates?



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3. Determine the area of a cornhole board (shown) that is 50cm wide, 120cm long, and whose hole has a radius of 18cm.



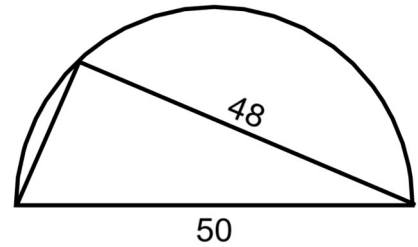
4. The cargo tank on a fuel truck is a cylinder with an elliptical base. If the tank is 2m tall, 2.8m wide, and has a capacity of 40 000 L, what is the length of the tank? (Note: 1L = 1000cm³).



MCT 4C
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5. A triangle is inscribed in a semi-circle.
Determine the perimeter of the triangle.



6. The object shown is a sector of a circle with a radius of 9 inches.
If the area of the sector is 76.34 in^2 , determine the central angle of the sector.

