Estimation MCAS Worksheet 1 **Name** _____

1 Vance charges $9.50 each time he mows his neighbor's lawn. Which of the following is closest to the number of times Vance will have to mow his neighbor's lawn in order to earn $178.00 to purchase a mountain bike?

A. 2 times

B. 5 times

C. 20 times

D. 50 times

Mark your answer here: 1. Ⓐ Ⓑ Ⓒ Ⓓ

2 Jamison is taking a friend to the movies. He wants to estimate the amount of money he will need for tickets, large bags of popcorn, and large cups of soda. The prices are shown below.

Ticket	$7.75
Large bag of popcorn	$3.85
Large cup of soda	$2.65

Which of the following is closest to the amount of money Jamison will need for 2 tickets, 2 large bags of popcorn, and 2 large cups of soda?

A. $34

B. $30

C. $24

D. $20

Mark your answer here: 2. Ⓐ Ⓑ Ⓒ Ⓓ

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3 Which of the following numbers is closest to the value of the expression below?

$$(555 \div 11) + (1971 \times 3.1)$$

A. 500

B. 600

C. 5000

D. 6000

Mark your answer here: 3. Ⓐ Ⓑ Ⓒ Ⓓ

4 Which of the following is closest to the value of $\sqrt{140}$?

A. 11

B. 12

C. 70

D. 72

Mark your answer here: 4. Ⓐ Ⓑ Ⓒ Ⓓ

5 Which of the following is closest to the cube root of 150?

A. 5

B. 12

C. 15

D. 50

Mark your answer here: 5. Ⓐ Ⓑ Ⓒ Ⓓ

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6 Which of the following is closest to the value of $\sqrt{72}$?

Mark your answer here: 6. Ⓐ Ⓑ Ⓒ Ⓓ

A. 8.1
B. 8.5
C. 8.9
D. 9.3

7 The town park is shaped like a square and has an area of 43,560 square feet, as shown below.

Mark your answer here: 7. Ⓐ Ⓑ Ⓒ Ⓓ

Town Park

The expression below can be used to find the length, in feet, of one side of the park.

$$\sqrt{43{,}560}$$

Which of the following is closest to the length of one side of the park?

A. 100 feet
B. 200 feet
C. 300 feet
D. 400 feet

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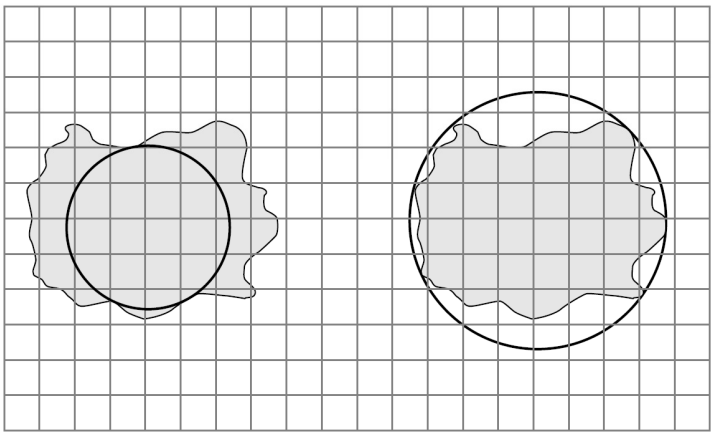
Directions: For the problem below, use a separate piece of paper to write your answers. Your teacher will not count anything you write on this page.

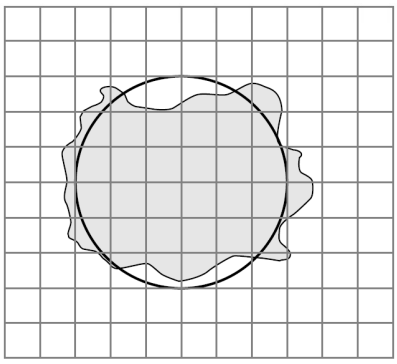
8 To estimate the area of an island that he found on a map, Nick traced two copies of the shape of the island on a piece of paper. Then he drew one circle outside the shape and another circle inside the shape as shown below.



Scale: 1 unit represents 10 kilometers.

a. To the nearest hundred square kilometers, what is the difference between the areas of the two circles that Nick drew? Use 3.14 for π, and show or explain how you got your answer.

b. How can Nick use the results to make a reasonable estimate of the area of the island?



Scale: 1 unit represents 10 kilometers.

c. Nick decided to copy the island again and draw a third circle, as shown above. Explain how Nick can use this to improve his previous estimate of the area of the island. Support your answer by making an improved estimate of the area of the island.

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