Which expression represents the perimeter of 21. the quadrilateral?



29. The maximum height reached by a bouncing basketball is given by h(x) = 9(0.75) where h is measured in feet and x is the bounce number. Describe the domain of this function and what it means when x=0.

- In the equation,  $\sqrt{k} = 3\sqrt{7}$ , what is k? 22.
- What is the value of  $36^{1/2}$ ? 23.
- Solve  $p^{\frac{7}{3}} = \sqrt[9]{p^x}$ 24.
- For questions 25-26, use the equation  $ax^2 + bx + c = 0$
- b<sup>2</sup> 4ac is called the 25.
- When  $b^2 4ac = 0$  then 26.
- 27. Let  $x^2 - y^2 = 50$  and x - y = 6. What is the value of x + y?

For questions 30-32 use this scenario. The Cost of Postage for a Letter



- 30. True or false: A letter weighing less than an ounce costs 39 cents.
- 31. True or false: A letter weighing exactly 4 ounces costs 47 cents.
- 32. True or false: If two ounces are added to the weight of a letter, the cost increases by 2 cents.
- The number of rabbits on a farm is initially 33. measured to be B. The population grows by 3% per month. Which expression represents the number of rabbits after m months?

28. Let the expression  $x^2+px + c$  be a perfect square trinomial. What is equivalent to c?

Name \_

\_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

## Semester Exam Questions #22-33----HOMEWORK

21. Which expression represents the perimeter of the quadrilateral?



- 22. In the equation,  $\sqrt{k} = 8\sqrt{3}$ , what is k?
- 23. What is the value of  $144^{1/2}$ ?

24. Solve  $p^{\frac{2}{3}} = \sqrt[12]{p^x}$ 

For questions 25-26, use the equation  $ax^2 + bx + c = 0$ 

- 25. c is called the \_\_\_\_\_
- 26. When  $b^2 4ac > 0$  then \_\_\_\_\_
- 27. Let  $x^2 y^2 = 50$  and x y = 5. What is the value of x + y?

29. The maximum height reached by a ball bounced from an initial height of 9 feet is given by  $b(x)=9(0.79)^x$  where b is measured in feet and x is the number of times it bounces. Describe the domain of this function and what it means when x=0

## For questions 30-32 use this scenario.

The Cost of Postage for a Letter



- 30. True or false: A letter weighing less than an ounce costs 41 cents.
- 31. True or false: A letter weighing exactly 3 ounces costs 43 cents.
- True or false: If an ounce is added to the weight of a letter, the cost increases by 2 cents.
- 33. The number of cellphones is initially measured to be C. The amount grows by 12% per year. Which expression represents the number of cellphones after t years?
- 28. Let the expression  $x^2 + hx + c$  be a perfect trinomial square. Which is equivalent to c?