$\qquad$ Date $\qquad$ Period $\qquad$

## Semester Exam Questions \#21-33----CLASSWORK

21. Which expression represents the perimeter of the quadrilateral?

22. In the equation, $\sqrt{k}=3 \sqrt{7}$, what is $k$ ?
23. What is the value of $36^{1 / 2}$ ?
24. Solve $p^{\frac{7}{3}}=\sqrt[9]{p^{x}}$

For questions 25-26, use the equation $a x^{2}+b x+c=0$
25. $\quad b^{2}-4 a c$ is called the $\qquad$
26. When $b^{2}-4 a c=0$ then $\qquad$
27. Let $x^{2}-y^{2}=50$ and $x-y=6$. What is the value of $x+y$ ?
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 $\mathrm{x}=0$.

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 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.
33. The number of rabbits on a farm is initially 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 $x^{2}+p x+c$ be a perfect square trinomial. What is equivalent to $c$ ?
$\qquad$ Date $\qquad$ Period $\qquad$

## 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 $a x^{2}+b x+c=0$
25. c is called the $\qquad$
26. When $b^{2}-4 a c>0$ then $\qquad$
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.
32. 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 $x^{2}+h x+c$ be a perfect trinomial square. Which is equivalent to $c$ ?

