

Name: \_\_\_\_\_

Teacher: Lee

1. Which equation is equivalent to  $y = x^2 + 24x - 18$ ?

1.  $y = (x + 12)^2 - 162$
2.  $y = (x + 12)^2 + 126$
3.  $y = (x - 12)^2 - 162$
4.  $y = (x - 12)^2 + 126$

2. Which equation has the same solution as  $x^2 + 12x - 15 = 0$ ?

1.  $(x - 6)^2 = 21$
2.  $(x + 6)^2 = 21$
3.  $(x - 6)^2 = 51$
4.  $(x + 6)^2 = 51$

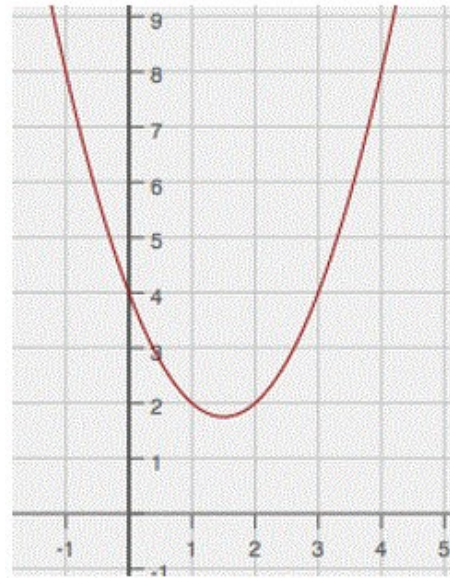
3. The quadratic equation  $x^2 - 10x = 5$  is rewritten in the form  $(x + p)^2 = q$ , when  $q$  is a constant. What is the value of  $p$ ?

1. -10
2. -5
3. 5
4. 30

4. What is the solution to the equation  $2(x + 3)^2 = 98$ ?

1. 4 and -10
2. -4 and 10
3.  $3 \pm \sqrt{96}$
4.  $-3 \pm \sqrt{96}$

5. The graph of a quadratic function is shown below:



How many real solutions does the quadratic function have?

1. 1
2. 2
3. 3
4. 0

6. In the function  $f(x) = (x - 2)^2 + 4$ , the minimum value occurs when  $x$  is

1. -2
2. 2
3. -4
4. 4