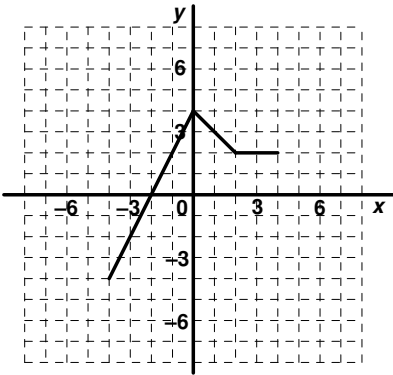
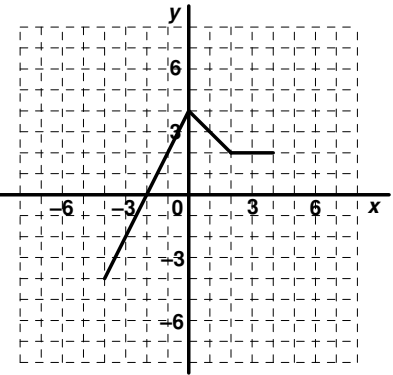
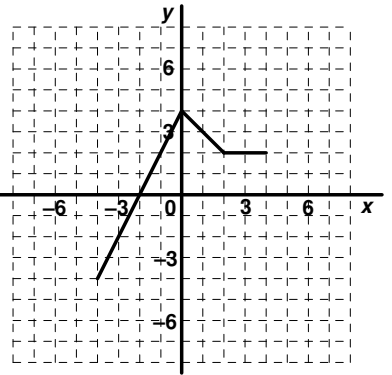
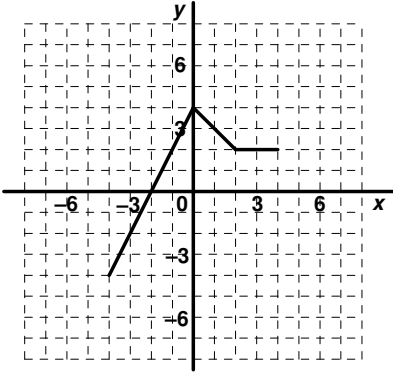
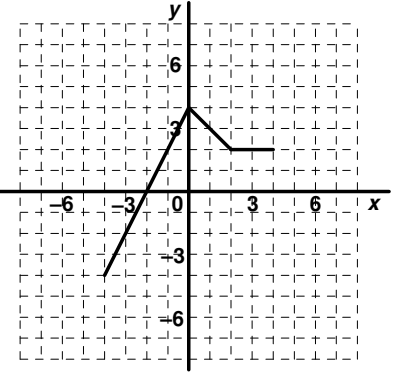
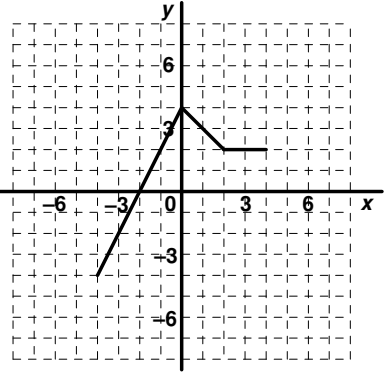
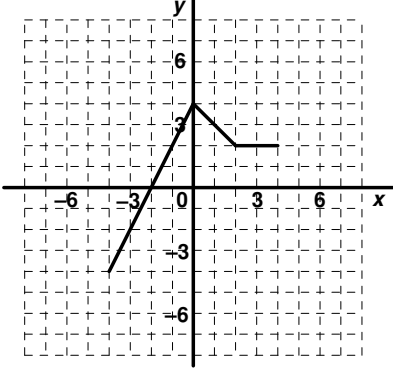
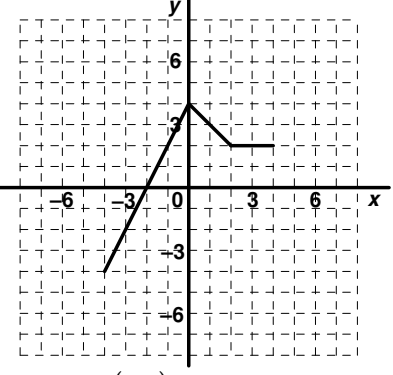
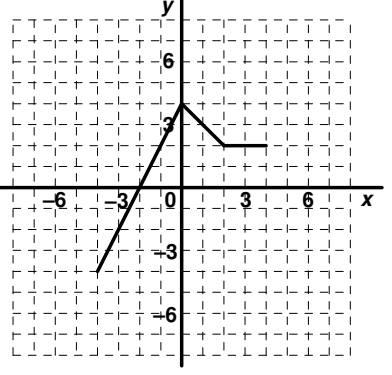
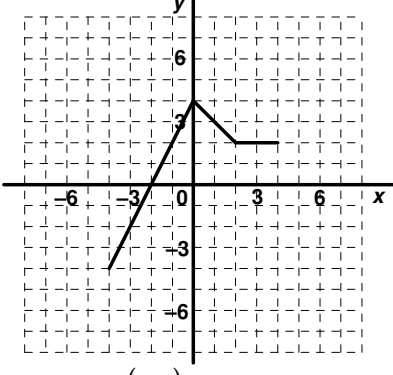
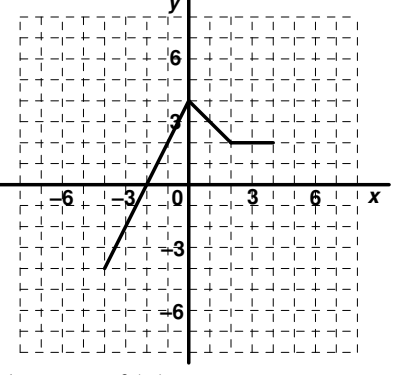
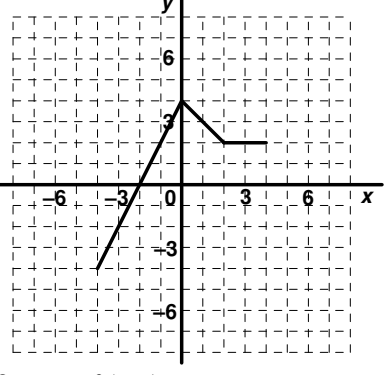


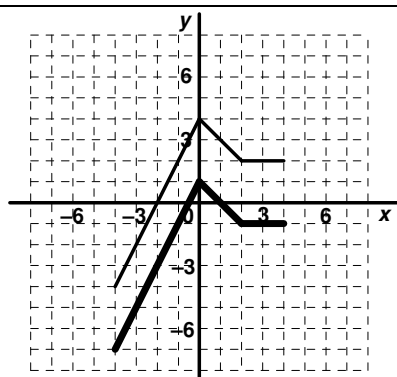
Date: _____

The function given in each graph below is $f(x)$. Sketch the graph of the indicated new function.

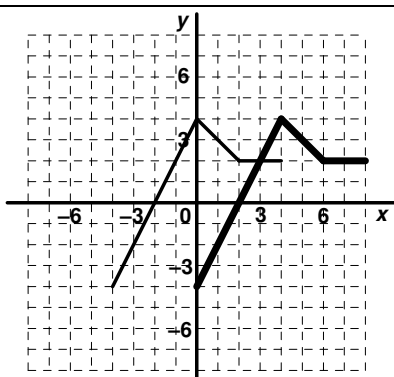
| | | |
|---|--|---|
|  <p>1. $y = f(x) - 3$</p> |  <p>2. $y = f(x - 4)$</p> |  <p>3. $y = f(x + 2)$</p> |
|  <p>4. $y = f(x - 3) - 4$</p> |  <p>5. $y = f(x + 4) + 4$</p> |  <p>6. $y = 2f(x)$</p> |
|  <p>7. $y = \frac{3}{4}f(x)$</p> |  <p>8. $y = f\left(\frac{1}{2}x\right)$</p> |  <p>9. $y = f(2x)$</p> |
|  <p>10. $y = \frac{1}{2}f\left(\frac{2}{3}x\right)$</p> |  <p>11. $y = -f(x)$</p> |  <p>12. $y = f(-x)$</p> |

Date: _____

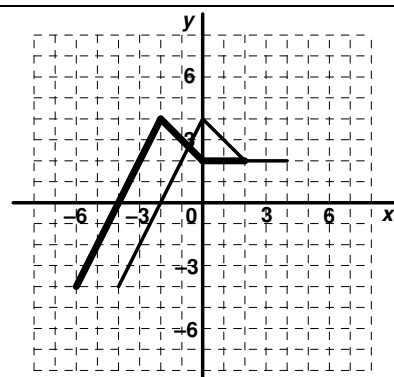
Answers:



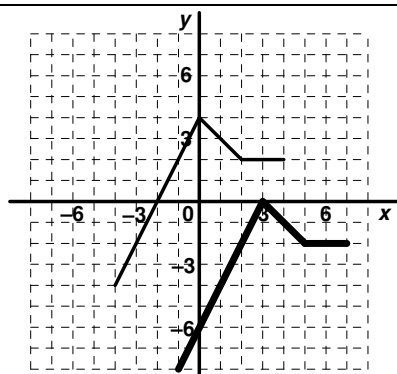
1. $y = f(x) - 3$



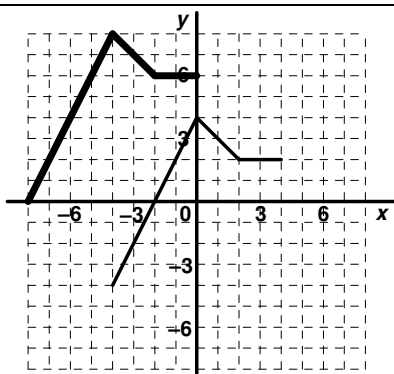
2. $y = f(x - 4)$



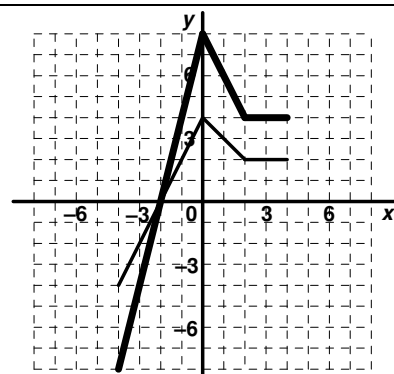
3. $y = f(x + 2)$



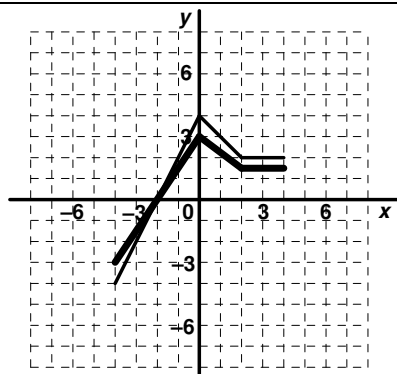
4. $y = f(x - 3) - 4$



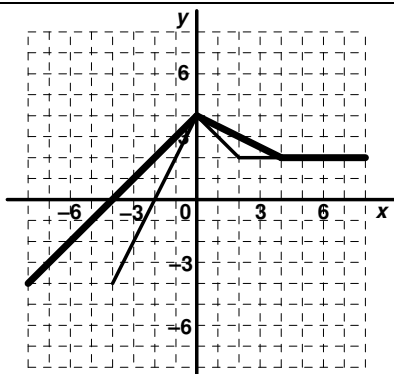
5. $y = f(x + 4) + 4$



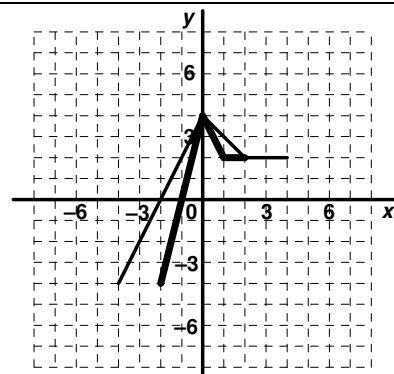
6. $y = 2f(x)$



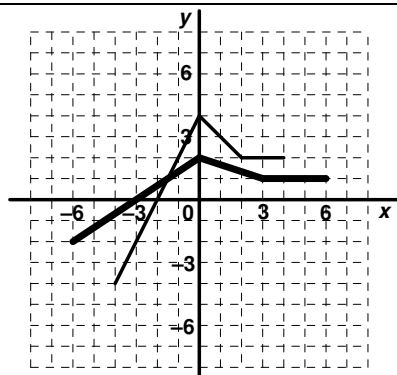
7. $y = \frac{3}{4} f(x)$



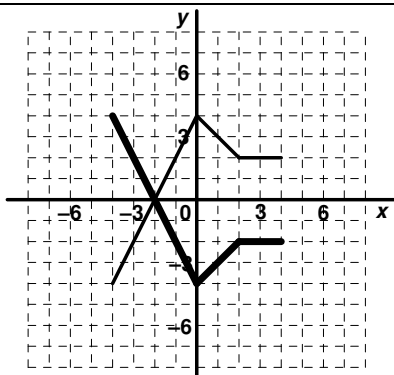
8. $y = f\left(\frac{1}{2}x\right)$



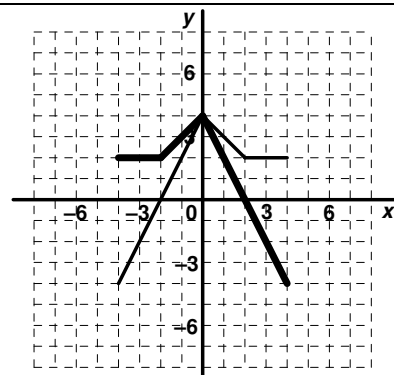
9. $y = f(2x)$



10. $y = \frac{1}{2} f\left(\frac{2}{3}x\right)$



11. $y = -f(x)$



12. $y = f(-x)$