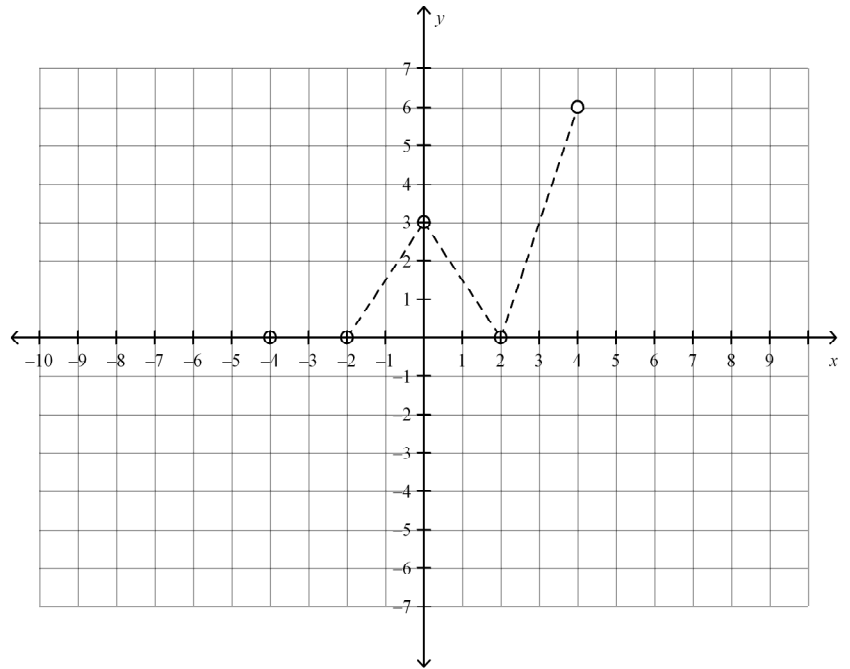


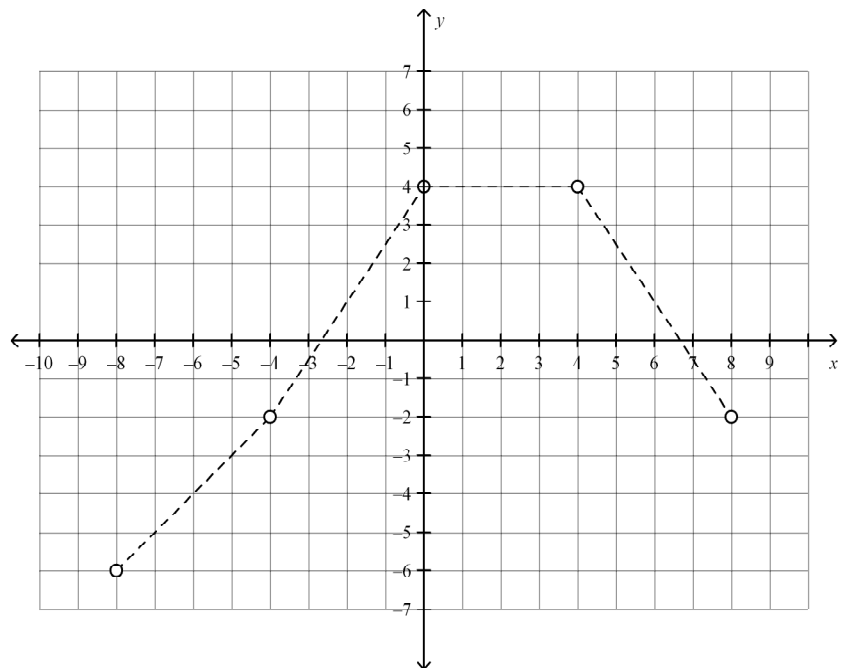
Name: \_\_\_\_\_

### MCR3U - WS - Transformations of Functions

1. The graph of  $y = f(x)$  is shown. List the transformations (using proper terminology and conventions) for  $y = 2f(x) - 4$ , then sketch the graph.



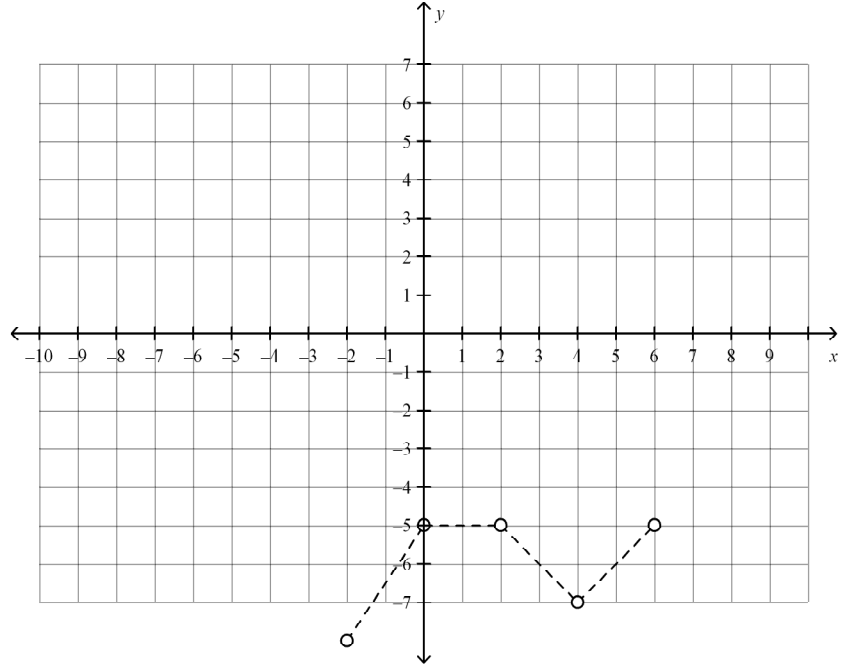
2. The graph of  $y = f(x)$  is shown. List the transformations (using proper terminology and conventions) for  $y = -\frac{1}{2}f[4(x - 3)] - 4$ , then sketch the graph.



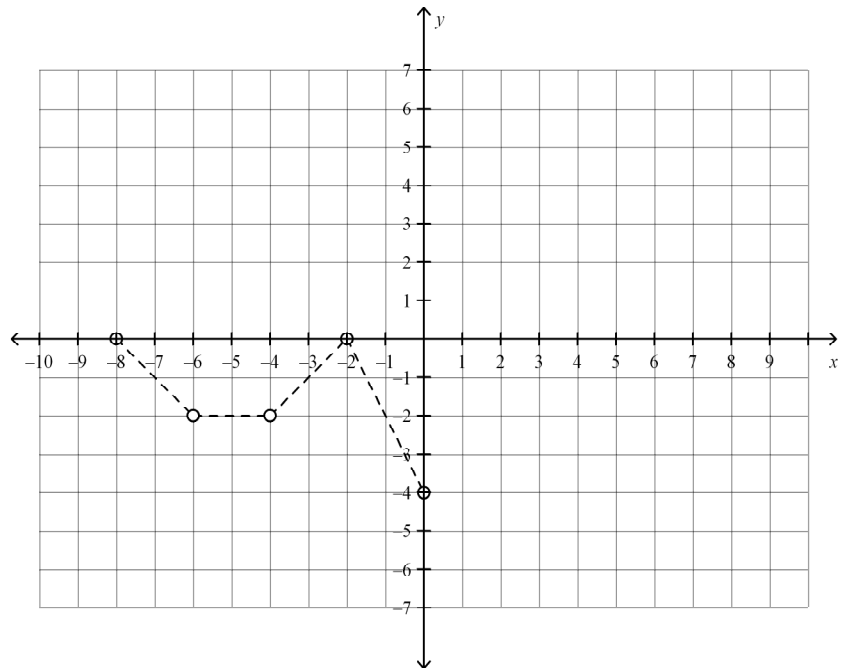
Name: \_\_\_\_\_

ID: A

3. The graph of  $y = f(x)$  is shown. List the transformations (using proper terminology and conventions) for  $y = -f(x + 4) - 5$ , then sketch the graph.



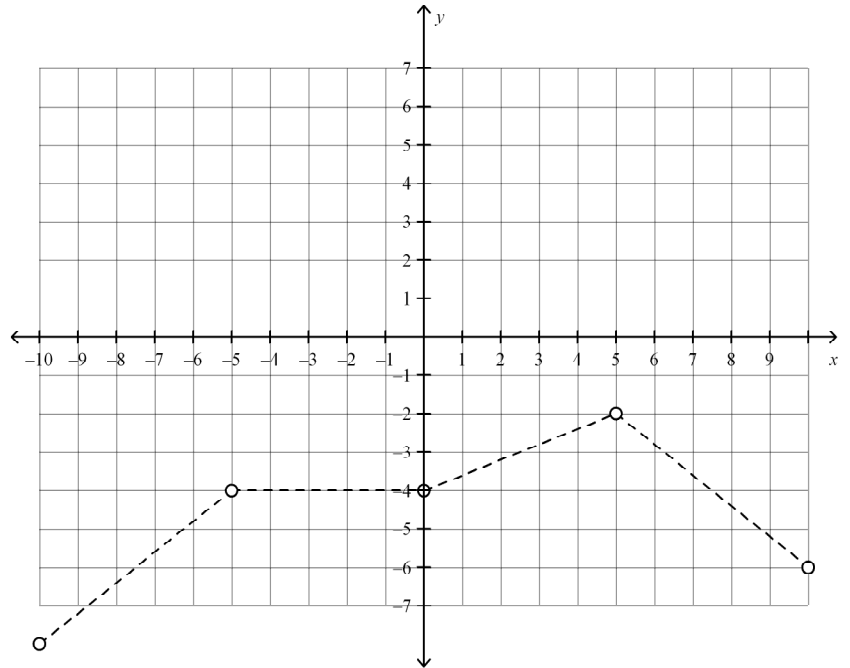
4. The graph of  $y = f(x)$  is shown. List the transformations (using proper terminology and conventions) for  $y = -\frac{5}{2}f(x - 3) - 3$ , then sketch the graph.



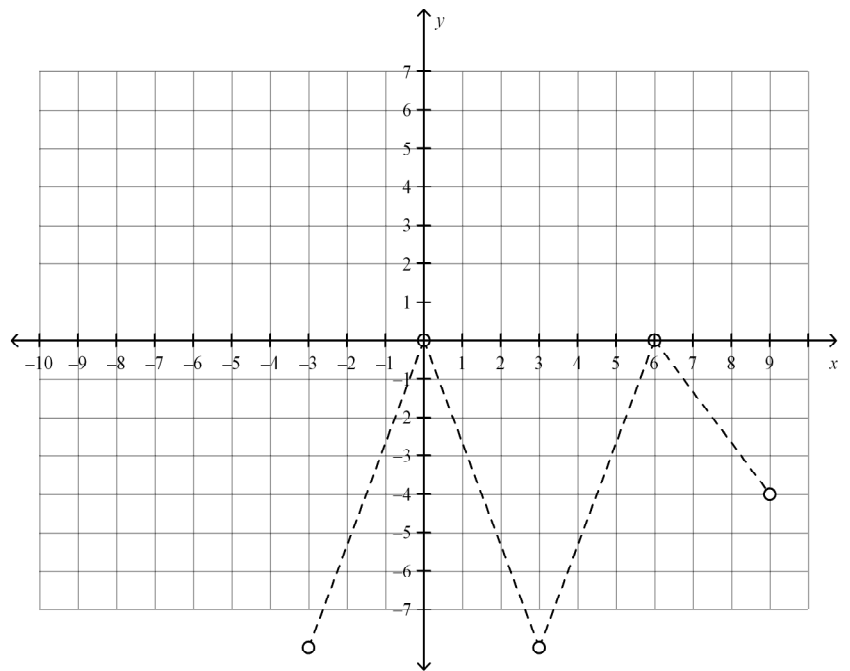
Name: \_\_\_\_\_

ID: A

5. The graph of  $y = f(x)$  is shown. List the transformations (using proper terminology and conventions) for  $y = -f\left[\frac{5}{4}(x - 1)\right]$ , then sketch the graph.



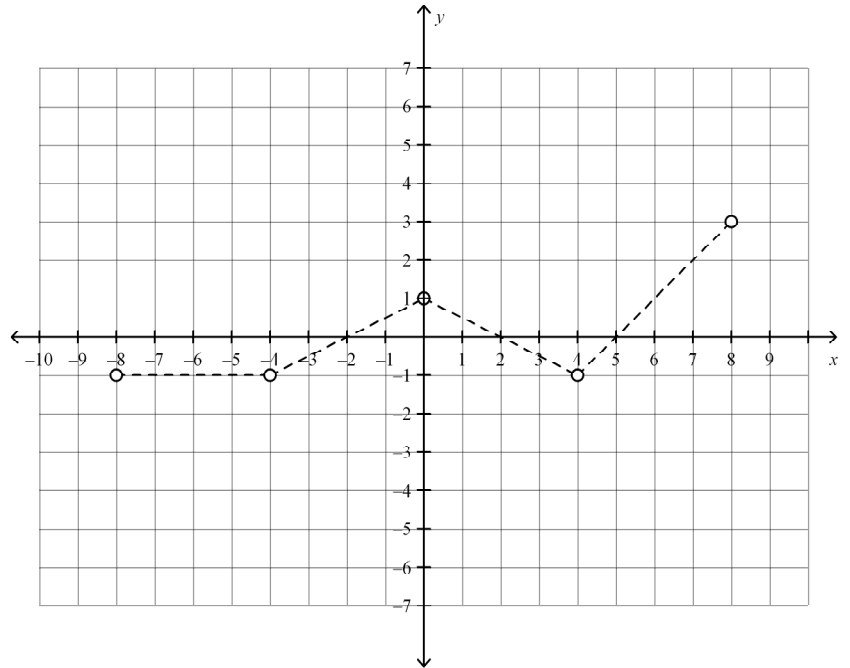
6. The graph of  $y = f(x)$  is shown. List the transformations (using proper terminology and conventions) for  $y = -\frac{3}{4}f\left[\frac{3}{4}(x + 5)\right] - 2$ , then sketch the graph.



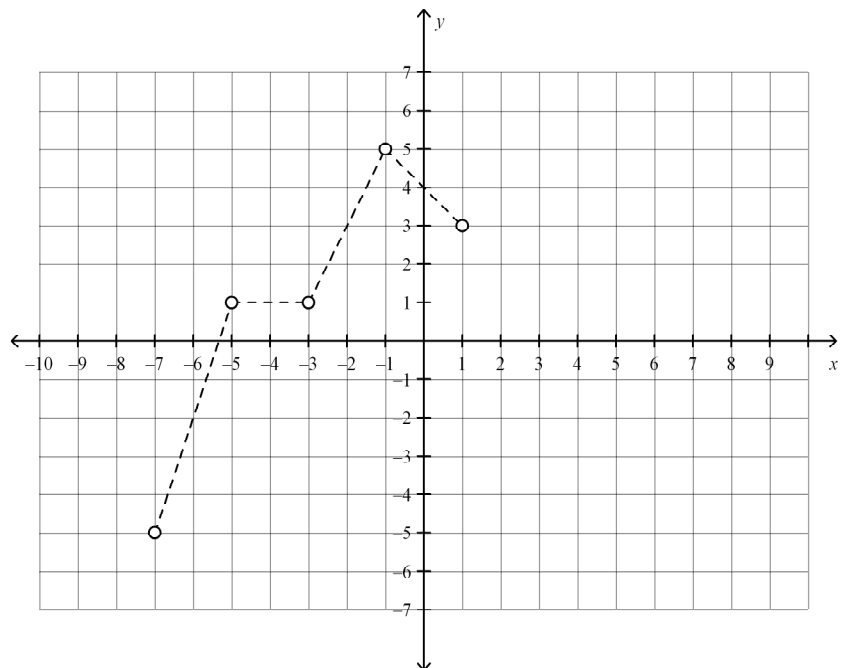
Name: \_\_\_\_\_

ID: A

7. The graph of  $y = f(x)$  is shown. List the transformations (using proper terminology and conventions) for  $y = -2f\left[\frac{4}{3}(x - 3)\right] + 3$ , then sketch the graph.



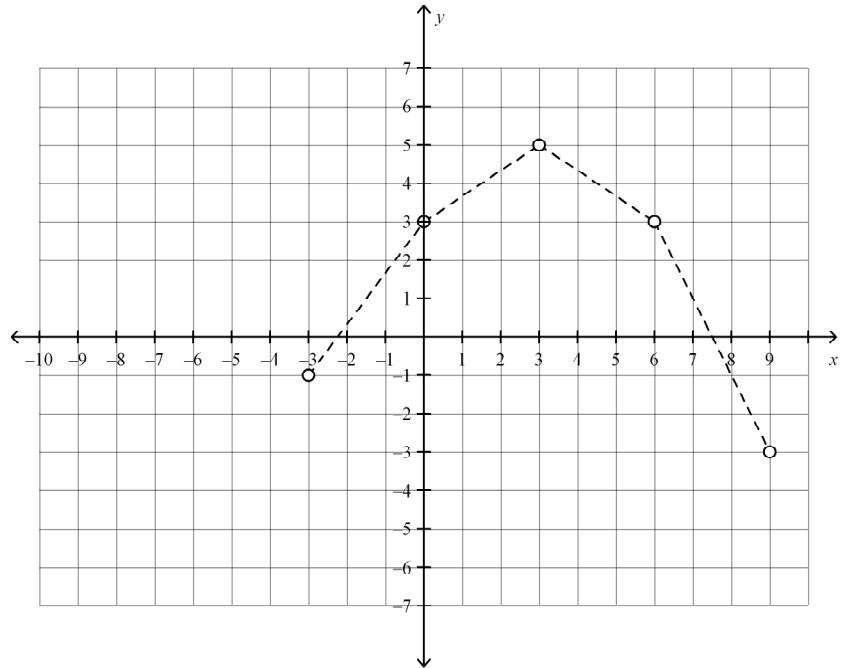
8. The graph of  $y = f(x)$  is shown. List the transformations (using proper terminology and conventions) for  $y = f(x - 1) + 1$ , then sketch the graph.



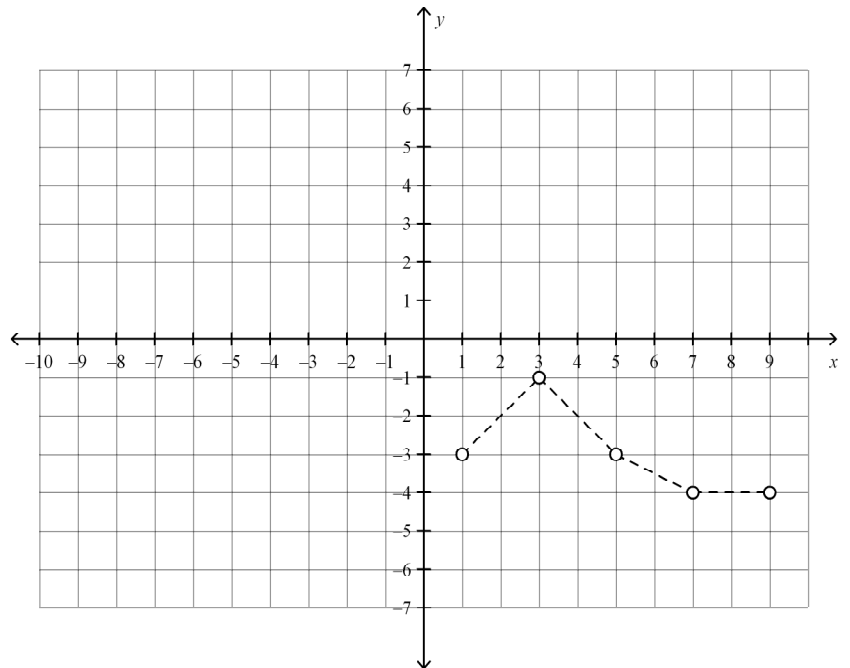
Name: \_\_\_\_\_

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9. The graph of  $y = f(x)$  is shown. List the transformations (using proper terminology and conventions) for  $y = -f\left[\frac{3}{2}(x + 4)\right] - 3$ , then sketch the graph.



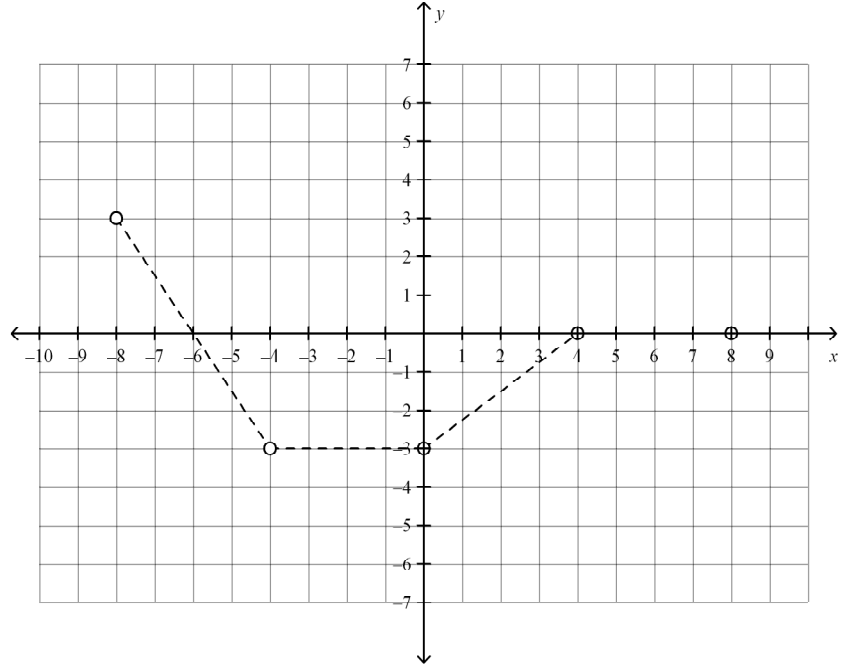
10. The graph of  $y = f(x)$  is shown. List the transformations (using proper terminology and conventions) for  $y = 2f(x - 1) + 5$ , then sketch the graph.



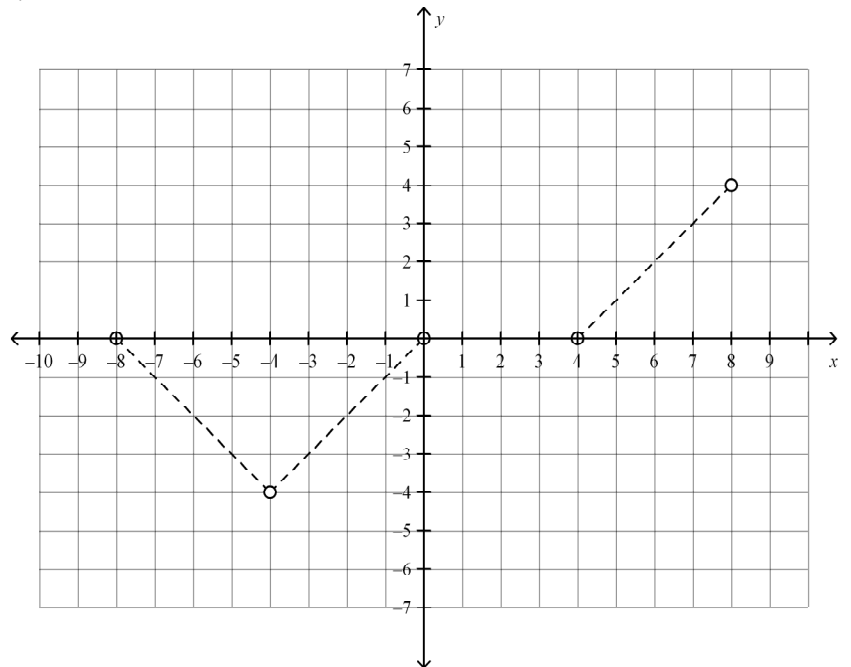
Name: \_\_\_\_\_

ID: A

11. The graph of  $y = f(x)$  is shown. List the transformations (using proper terminology and conventions) for  $y = f[4(x - 1)] + 2$ , then sketch the graph.

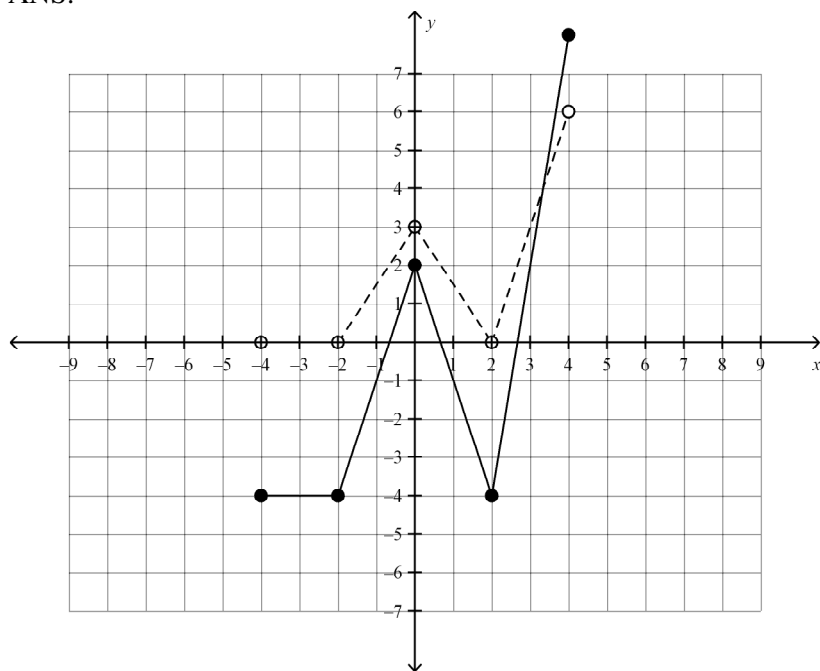


12. The graph of  $y = f(x)$  is shown. List the transformations (using proper terminology and conventions) for  $y = -f[2(x + 3)] - 1$ , then sketch the graph.



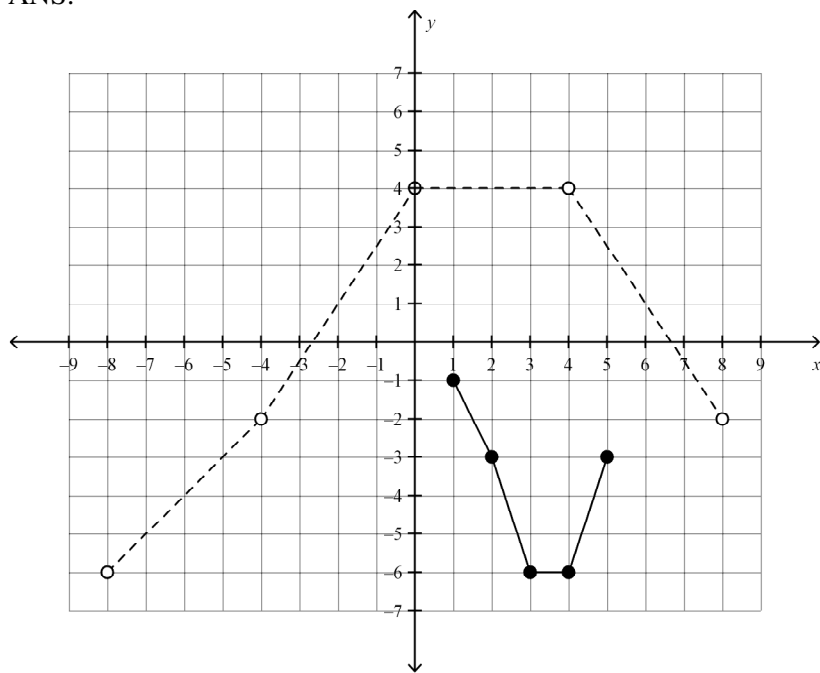
MCR3U - WS - Transformations of Functions  
Answer Section

1. ANS:



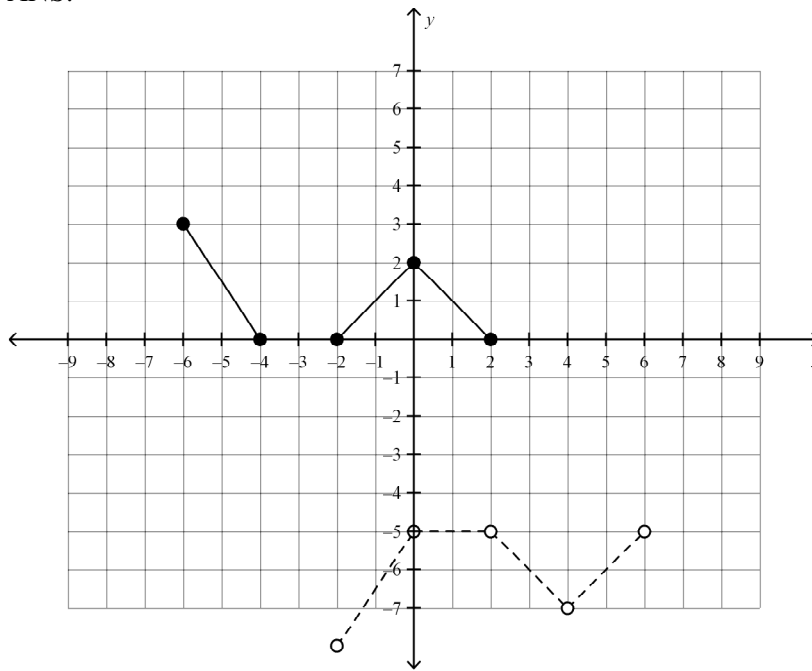
PTS: 1

2. ANS:



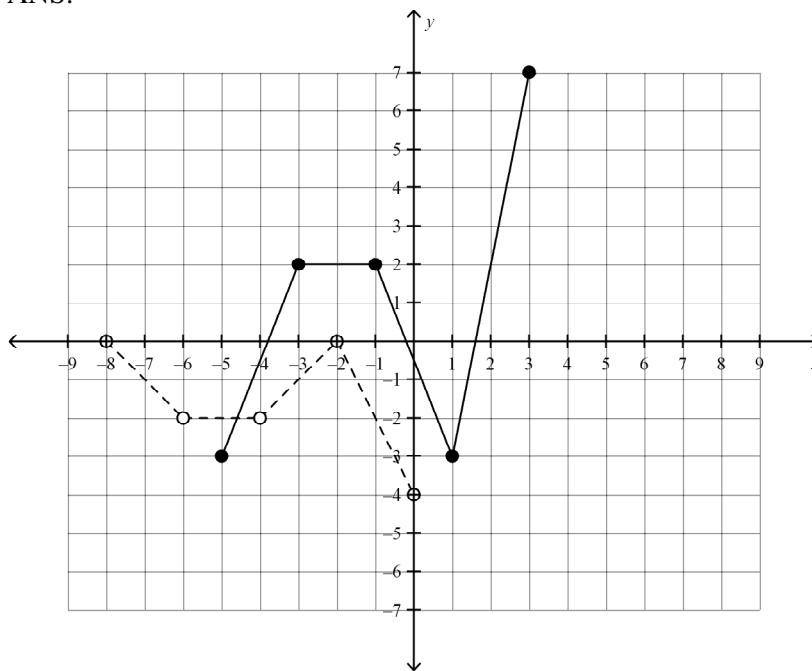
PTS: 1

3. ANS:



PTS: 1

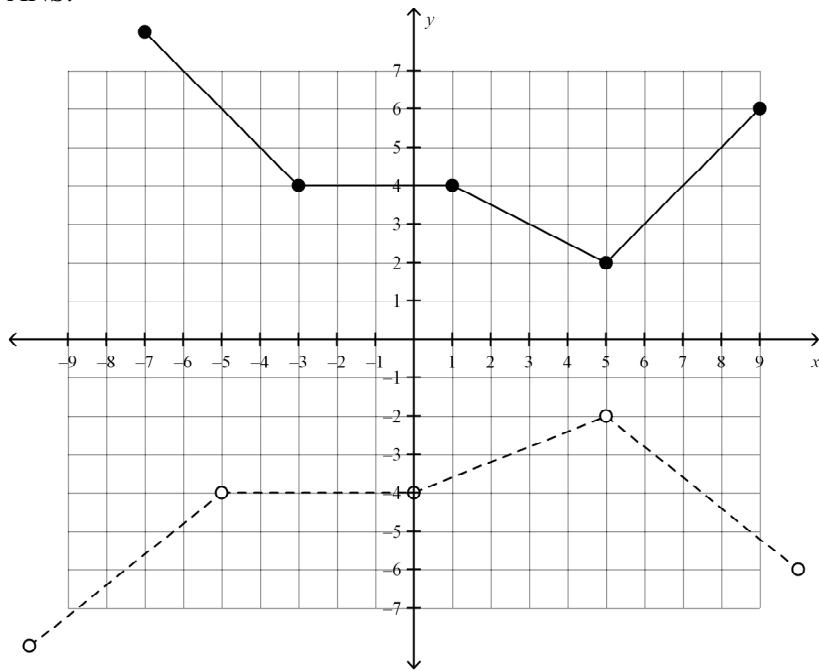
4. ANS:



PTS: 1

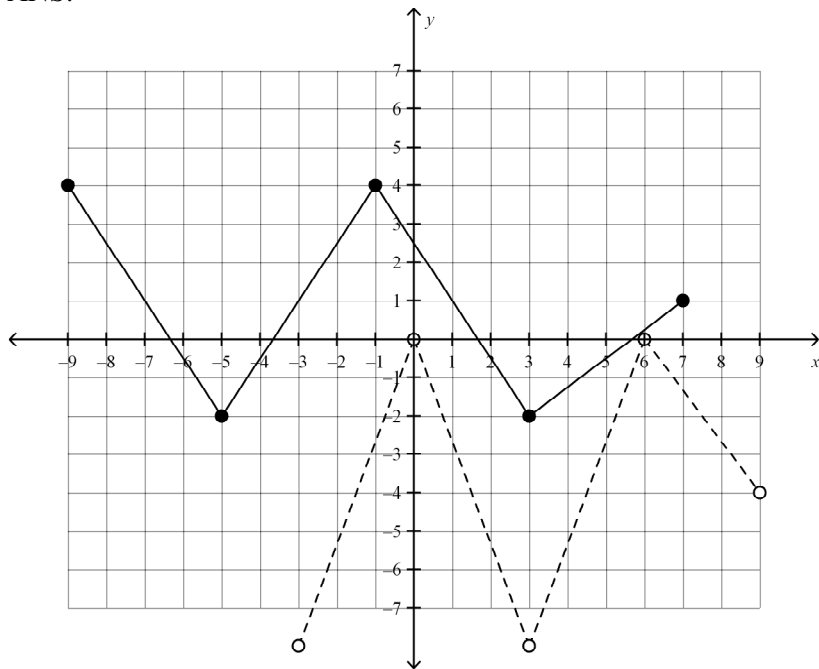


5. ANS:



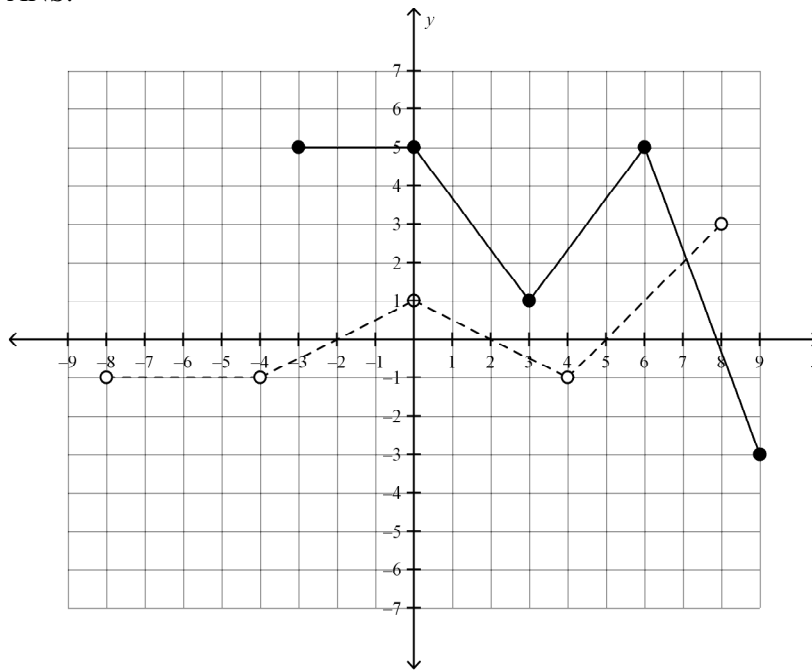
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6. ANS:



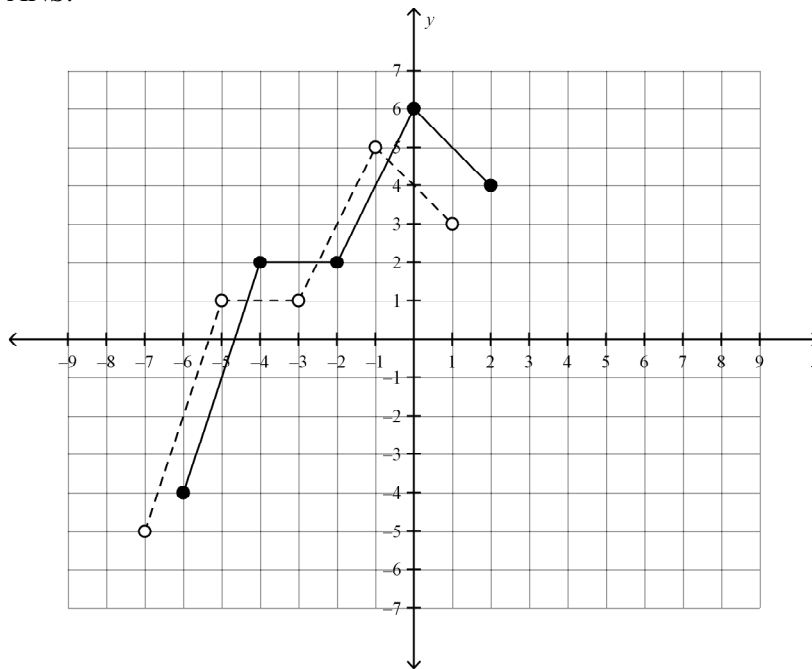
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7. ANS:



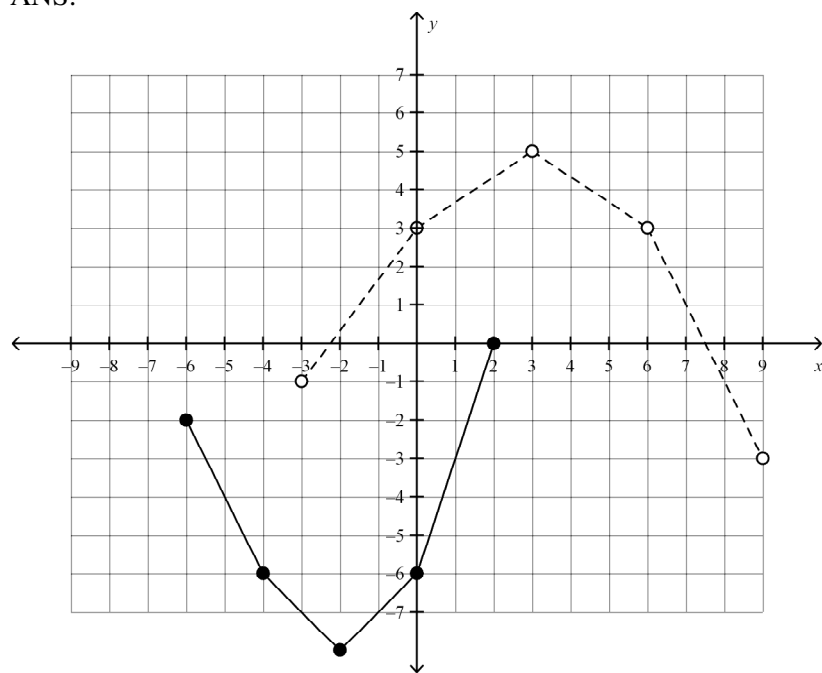
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8. ANS:



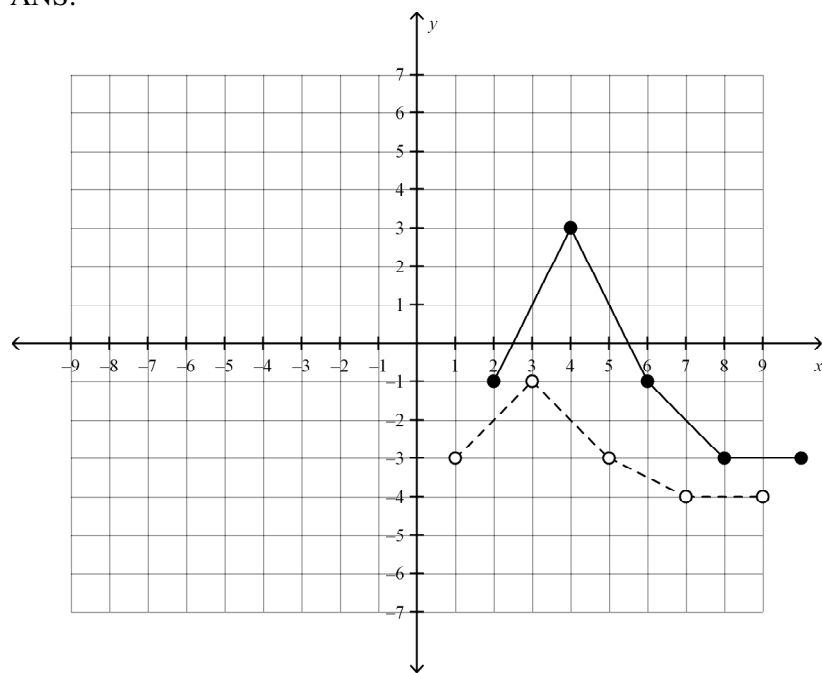
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9. ANS:



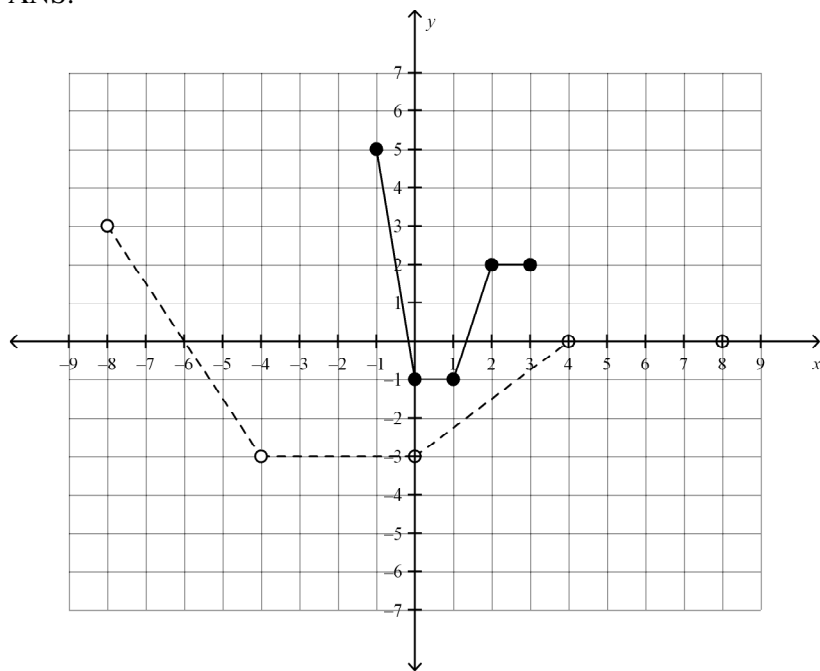
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10. ANS:



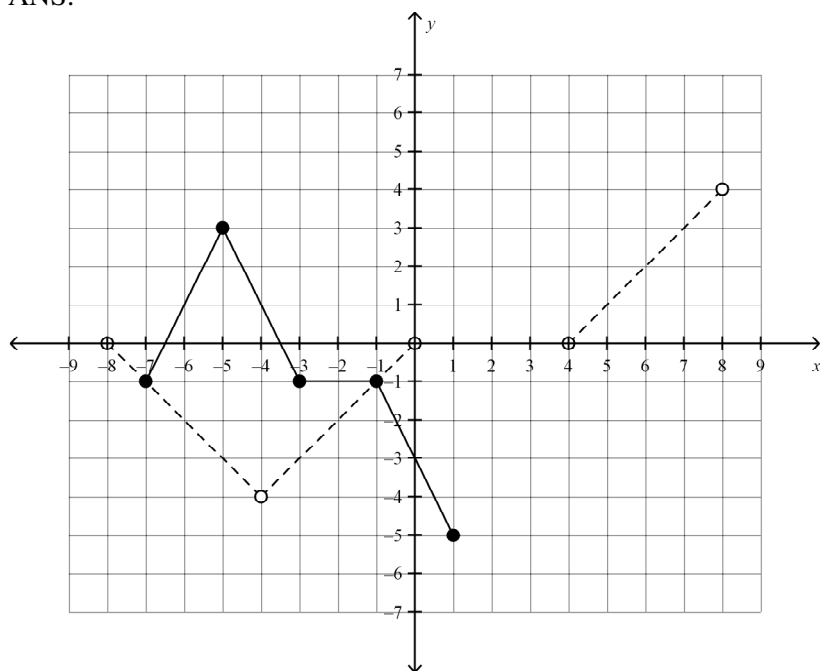
PTS: 1

11. ANS:



PTS: 1

12. ANS:



PTS: 1