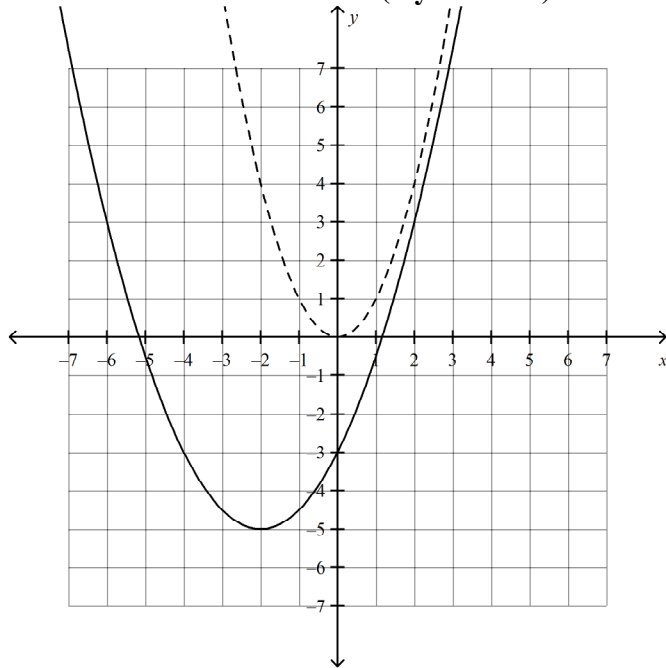


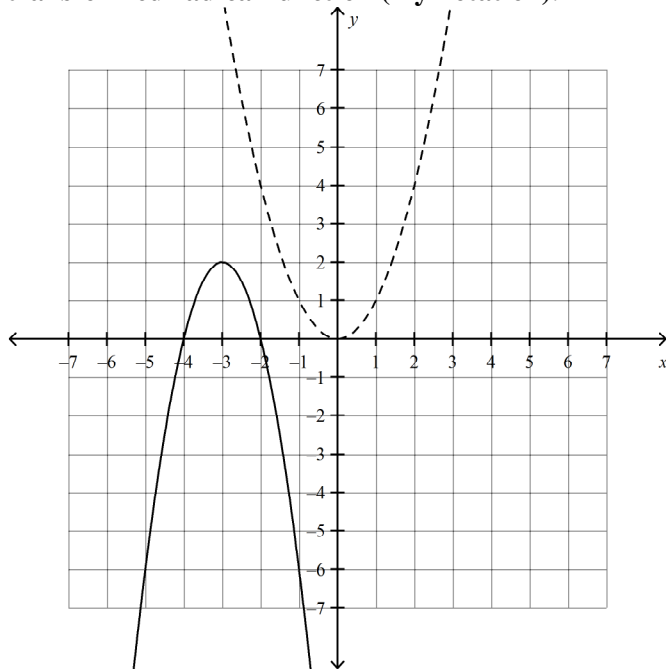
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MCR3U - WS - Determining Transformations from Two Graphs

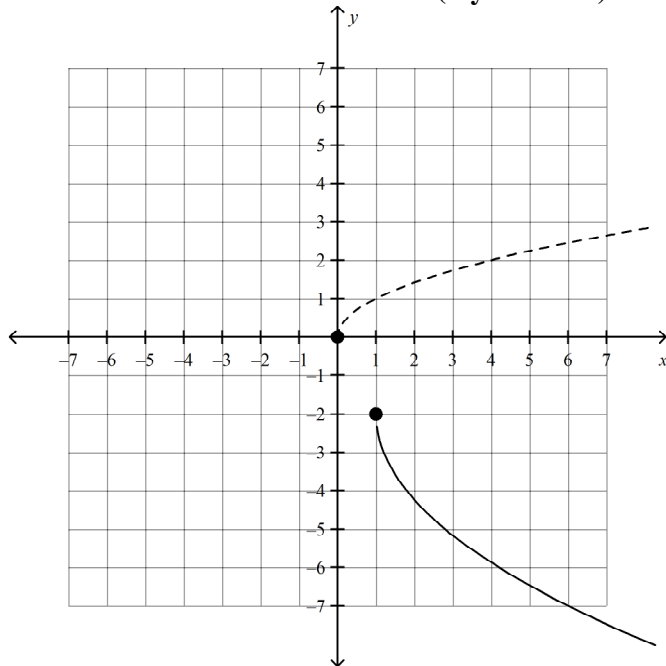
1. The parent radical function, $y = x^2$, is shown (dotted line), along with the transformed function (solid line). Determine the transformations and write the equation of the transformed function in **both function notation and as a transformed radical function (x-y notation)**.



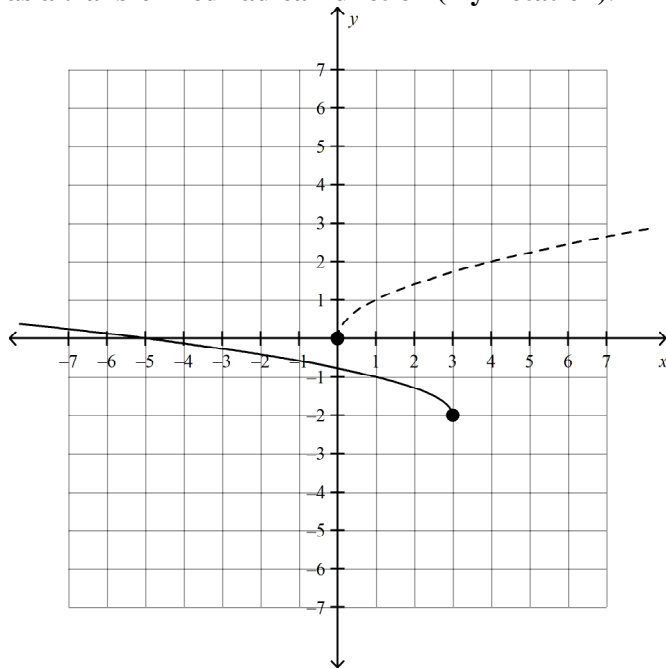
2. The parent radical function, $y = x^2$, is shown (dotted line), along with the transformed function (solid line). Determine the transformations and write the equation of the transformed function in **both function notation and as a transformed radical function (x-y notation)**.



3. The parent radical function, $y = \sqrt{x}$, is shown (dotted line), along with the transformed function (solid line). Determine the transformations and write the equation of the transformed function in **both function notation and as a transformed radical function (x-y notation)**.



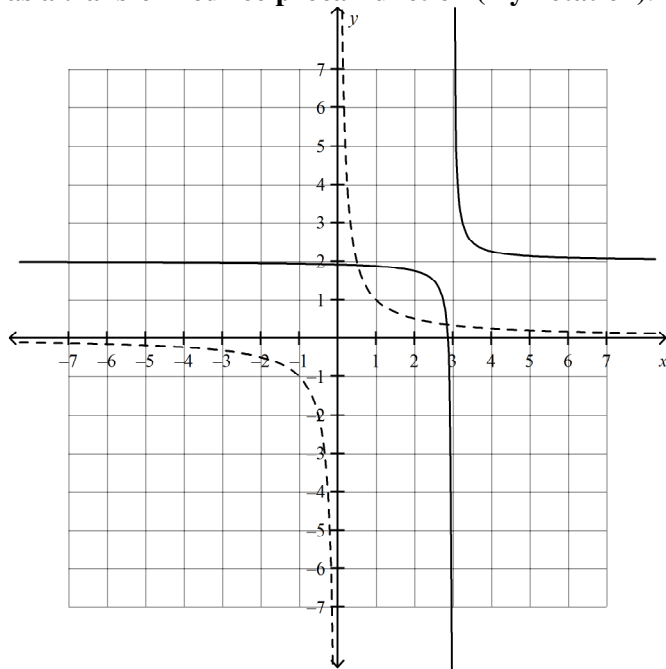
4. The parent radical function, $y = \sqrt{x}$, is shown (dotted line), along with the transformed function (solid line). Determine the transformations and write the equation of the transformed function in **both function notation and as a transformed radical function (x-y notation)**.



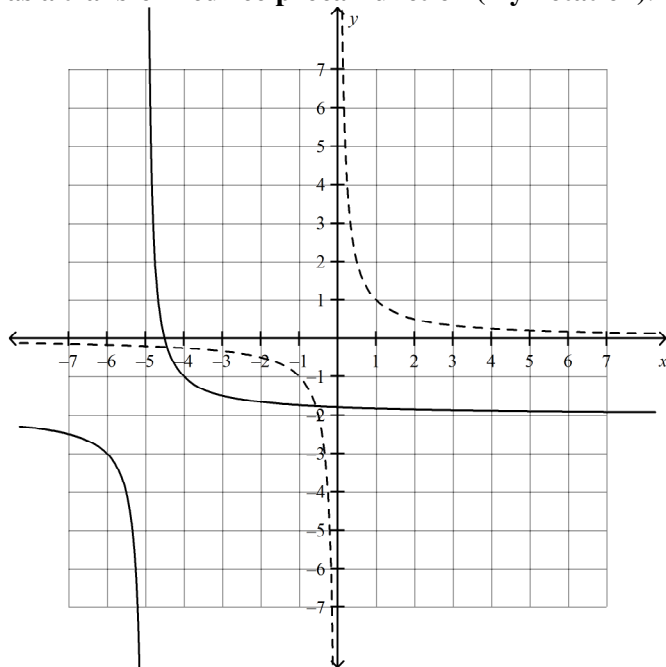
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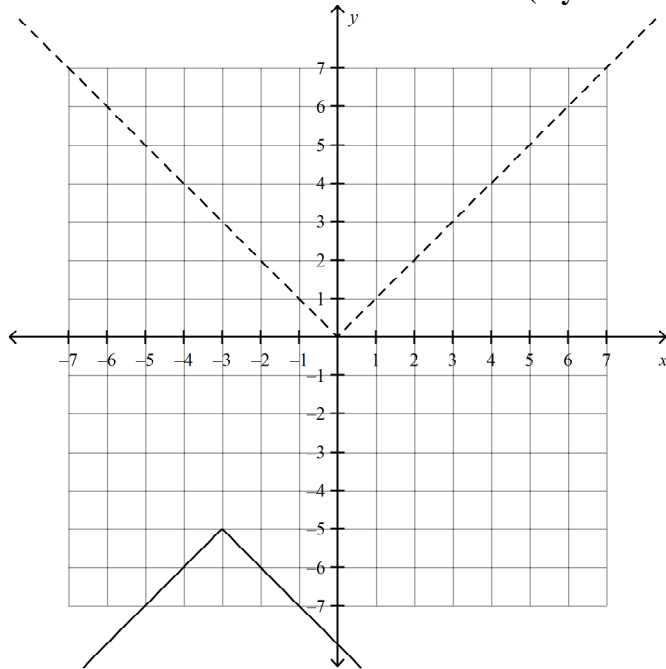
5. The parent reciprocal function, $f(x) = \frac{1}{x}$, is shown (dotted line), along with the transformed function (solid line). Determine the transformations and write the equation of the transformed function in **both function notation and as a transformed reciprocal function (x-y notation)**.



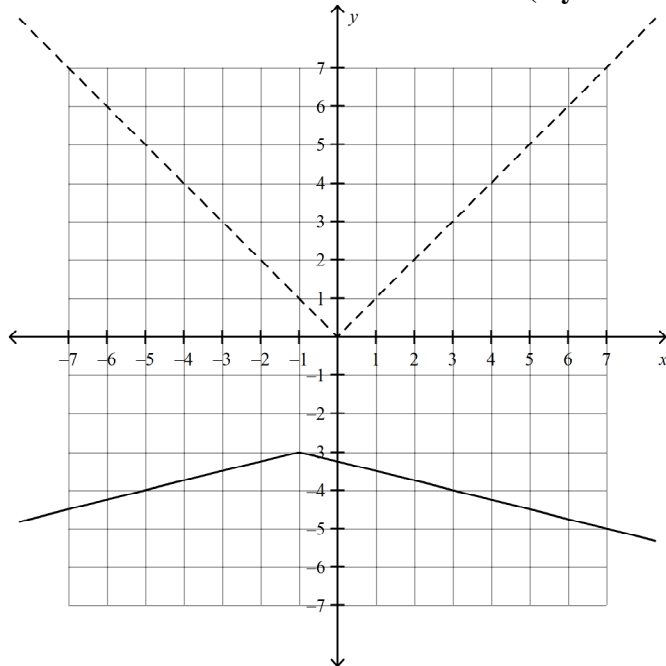
6. The parent reciprocal function, $f(x) = \frac{1}{x}$, is shown (dotted line), along with the transformed function (solid line). Determine the transformations and write the equation of the transformed function in **both function notation and as a transformed reciprocal function (x-y notation)**.



7. The parent absolute value function, $y = |x|$, is shown (dotted line), along with the transformed function (solid line). Determine the transformations and write the equation of the transformed function in **both function notation and as a transformed absolute value function (x-y notation)**.



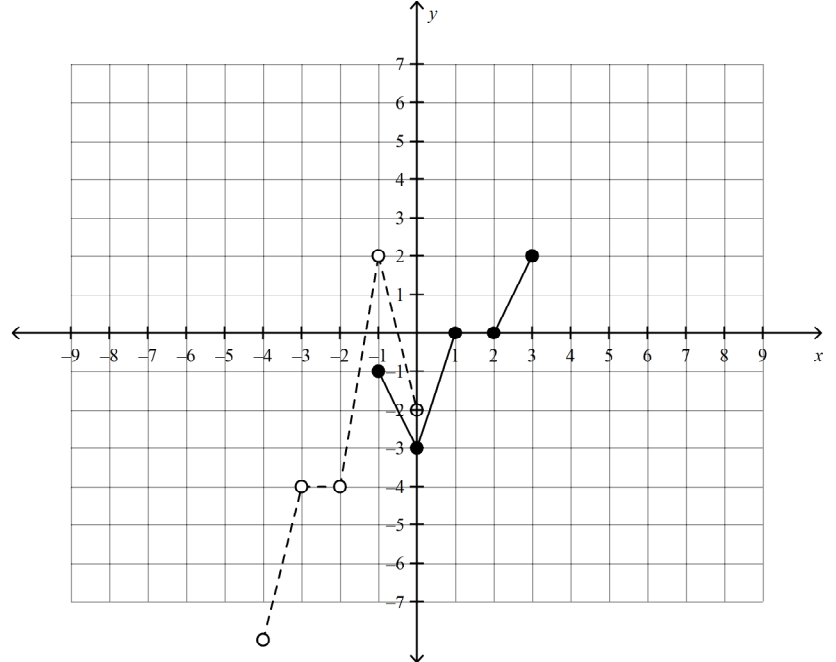
8. The parent absolute value function, $y = |x|$, is shown (dotted line), along with the transformed function (solid line). Determine the transformations and write the equation of the transformed function in **both function notation and as a transformed absolute value function (x-y notation)**.



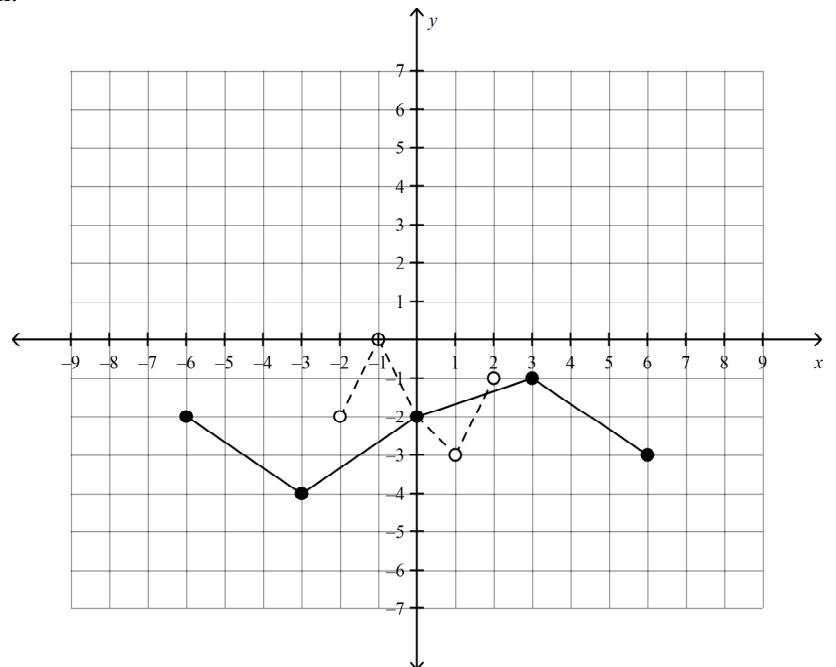
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9. The graph of $y = f(x)$ is shown (dotted line). List the transformations (using proper terminology and conventions) and write the equation using function notation.



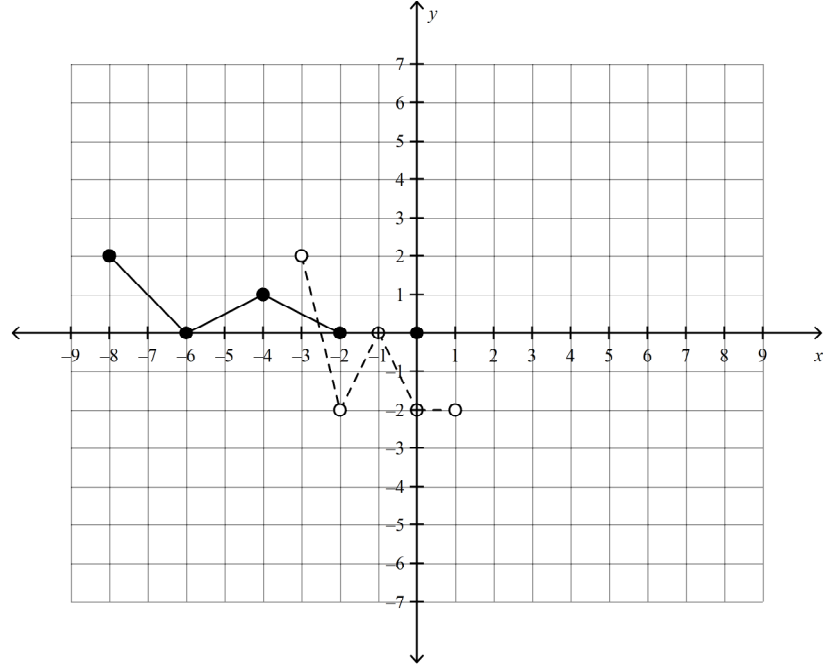
10. The graph of $y = f(x)$ is shown (dotted line). List the transformations (using proper terminology and conventions) and write the equation using function notation.



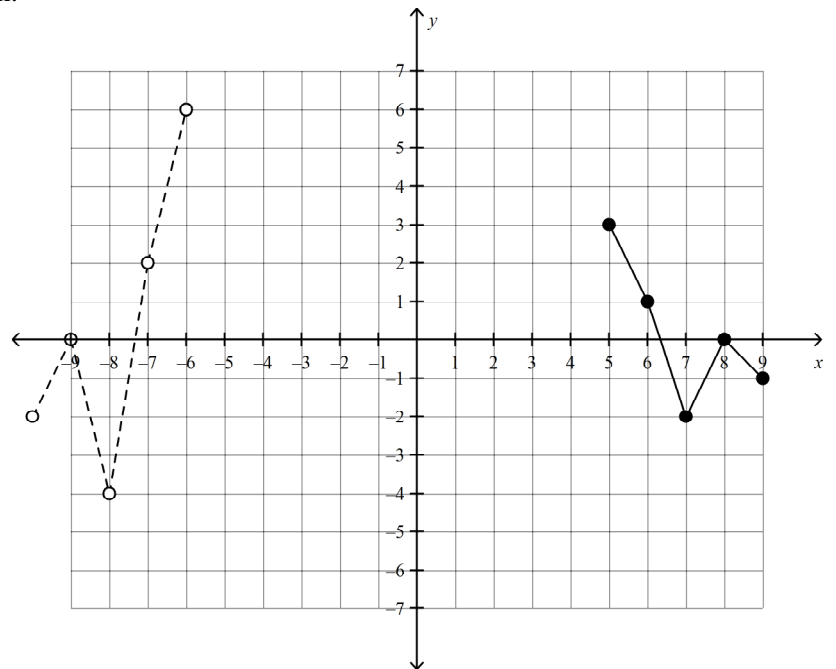
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11. The graph of $y = f(x)$ is shown (dotted line). List the transformations (using proper terminology and conventions) and write the equation using function notation.



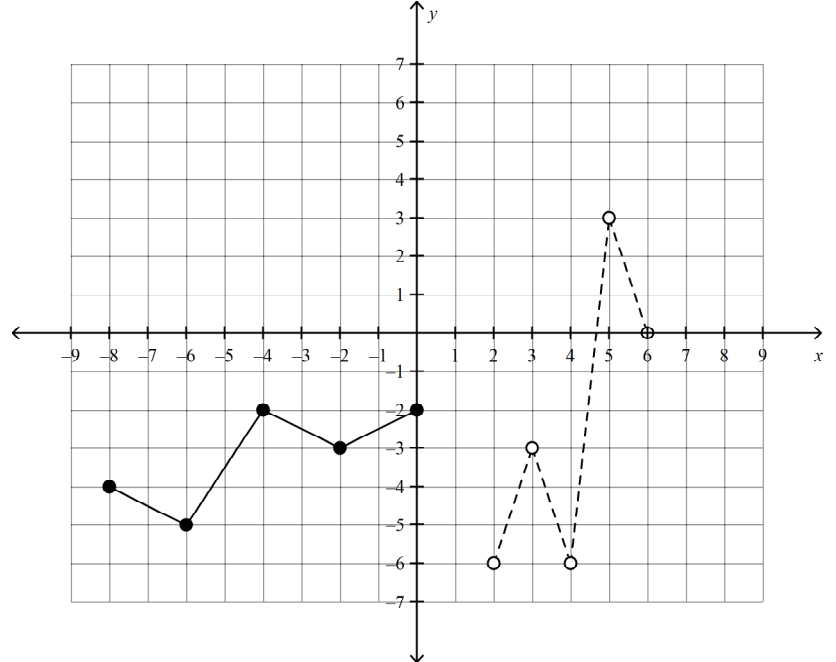
12. The graph of $y = f(x)$ is shown (dotted line). List the transformations (using proper terminology and conventions) and write the equation using function notation.



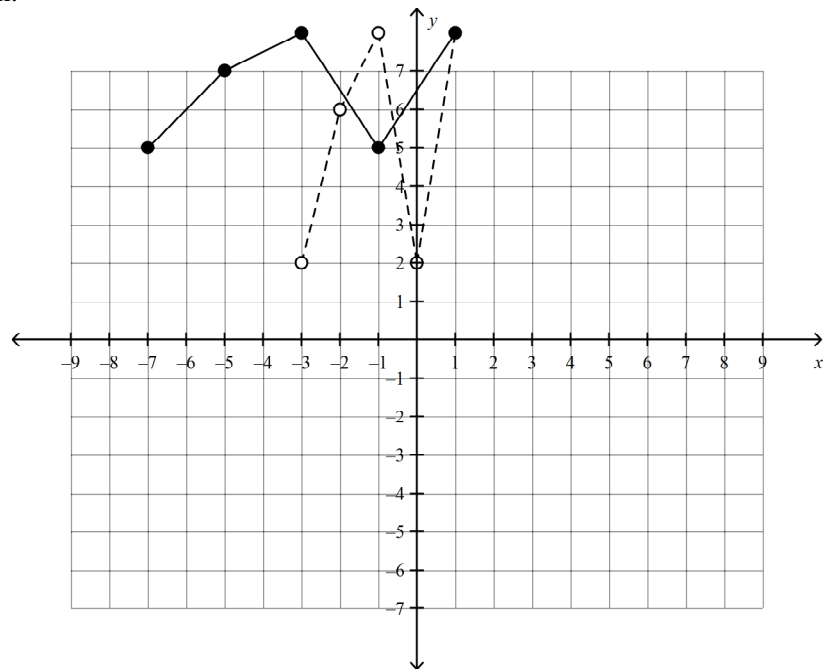
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13. The graph of $y = f(x)$ is shown (dotted line). List the transformations (using proper terminology and conventions) and write the equation using function notation.



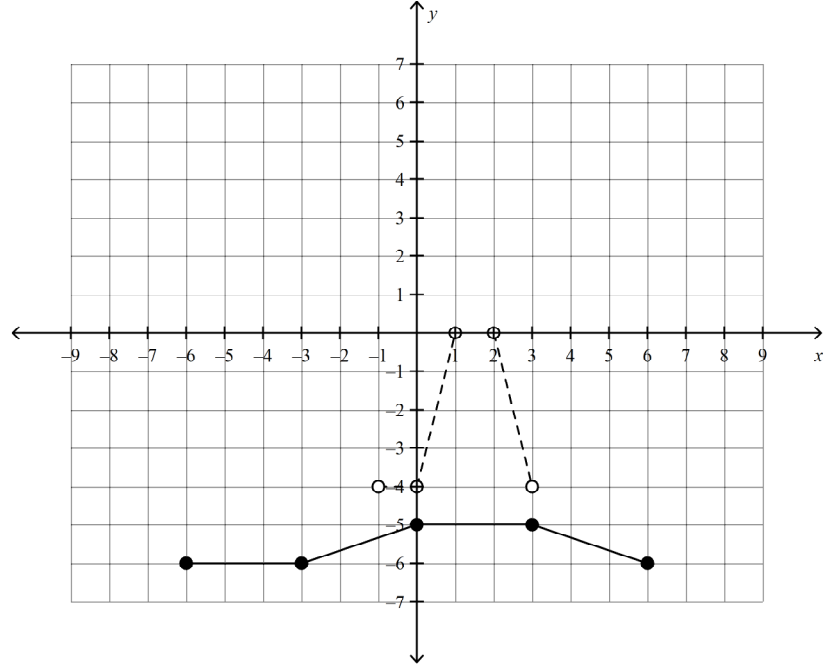
14. The graph of $y = f(x)$ is shown (dotted line). List the transformations (using proper terminology and conventions) and write the equation using function notation.



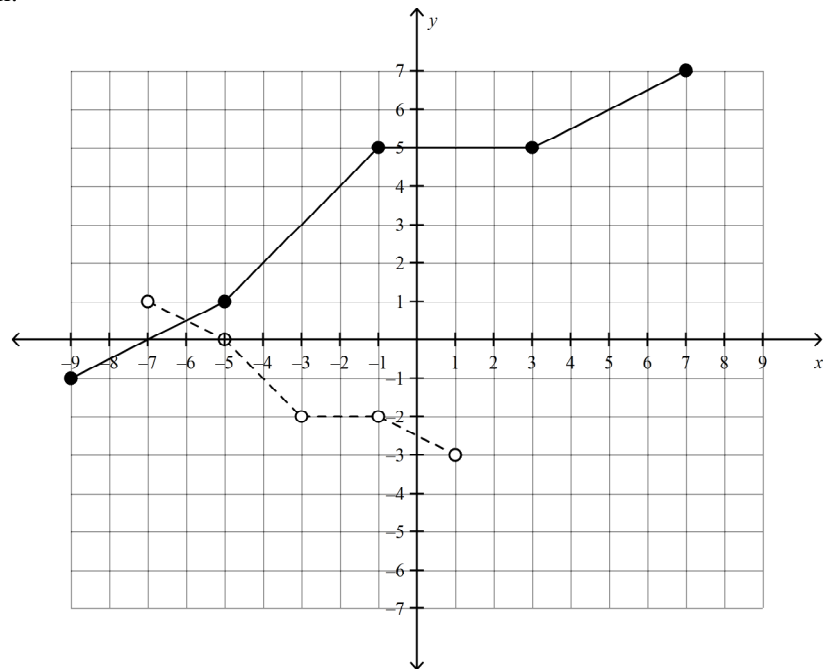
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15. The graph of $y = f(x)$ is shown (dotted line). List the transformations (using proper terminology and conventions) and write the equation using function notation.



16. The graph of $y = f(x)$ is shown (dotted line). List the transformations (using proper terminology and conventions) and write the equation using function notation.



MCR3U - WS - Determining Transformations from Two Graphs
Answer Section

1. ANS:

$$y = \frac{1}{2}f(x + 2) - 5.$$

PTS: 1

2. ANS:

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

PTS: 1

3. ANS:

$$y = -f[5(x - 1)] - 2.$$

PTS: 1

4. ANS:

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

PTS: 1

5. ANS:

$$y = \frac{1}{4}f(x - 3) + 2.$$

PTS: 1

6. ANS:

$$y = f(x + 5) - 2.$$

PTS: 1

7. ANS:

$$y = -f(x + 3) - 5.$$

PTS: 1

8. ANS:

$$y = -\frac{1}{4}f(x + 1) - 3.$$

PTS: 1

9. ANS:

$$y = -\frac{1}{2}f[-(x + 1)] - 2$$

PTS: 1

10. ANS:

$$y = -f\left(\frac{1}{3}x\right) - 4$$

PTS: 1

11. ANS:

$$y = \frac{1}{2}f\left[\frac{1}{2}(x+2)\right] + 1$$

PTS: 1

12. ANS:

$$y = \frac{1}{2}f[-(x+1)]$$

PTS: 1

13. ANS:

$$y = -\frac{1}{3}f\left[-\frac{1}{2}(x-4)\right] - 4$$

PTS: 1

14. ANS:

$$y = \frac{1}{2}f\left[\frac{1}{2}(x+1)\right] + 4$$

PTS: 1

15. ANS:

$$y = \frac{1}{4}f\left[\frac{1}{3}(x+3)\right] - 5$$

PTS: 1

16. ANS:

$$y = -2f\left[\frac{1}{2}(x-5)\right] + 1$$

PTS: 1