Algebra 3-4 **Name**_____

Transformation of Functions #3

Period_____ **Date**_____

Write the transformed functions in the table, matching them with the descriptions of the transformations. If a function has more than one transformation, be sure to match it with all its transformations.
Additionally: Identify the Parent Function of the transformed function.

- **For transformations identified as Translations, identify the direction and distance of the translation**
- **For transformations identified as a Stretch or Shrink, tell by what factor the function is stretched or shrunk**

Example: $g(x) = -5(-2x - 7)^2 + 5$ **Parent Function: $f(x) =$** _____

1. $g(x) = x^2 - 4$ Parent Function: $f(x) =$ _____
2. $h(x) = |x + 5|$ Parent Function: $f(x) =$ _____
3. $v(x) = 2\sqrt{x}$ Parent Function: $f(x) =$ _____
4. $k(x) = (-x + 1)^3$ Parent Function: $f(x) =$ _____
5. $m(x) = -(3x)^2 + 7$ Parent Function: $f(x) =$ _____
6. $z(x) = \frac{1}{3}\sqrt[3]{-x - 3}$ Parent Function: $f(x) =$ _____
7. $n(x) = -3x^7$ Parent Function: $f(x) =$ _____
8. $p(x) = \left|\frac{1}{6}x + \frac{3}{7}\right|$ Parent Function: $f(x) =$ _____
9. $d(x) = \sqrt{2x}$ Parent Function: $f(x) =$ _____
10. $q(x) = (x - 1)^2 + 1$ Parent Function: $f(x) =$ _____
11. $r(x) = (x - 4)^2$ Parent Function: $f(x) =$ _____
12. $w(x) = -\frac{1}{5}|-4x + 2| - 1$ Parent Function: $f(x) =$ _____
13. $b(x) = \sqrt[3]{\frac{2}{5}x}$ Parent Function: $f(x) =$ _____
14. $s(x) = -x^2 + 4$ Parent Function: $f(x) =$ _____
15. $j(x) = 0.2x^3 - 1.1$ Parent Function: $f(x) =$ _____

Algebra 3-4
Transformation of Functions #3

Name_____

Period_____ **Date**_____

Horizontal Translation (shift/slide)	**Vertical Translation (shift/slide)**
Horizontal Reflection	**Vertical Reflection**
Horizontal Stretch	**Vertical Stretch**
Horizontal Shrink	**Vertical Shrink**